Archaeologia Cambrensis.

*SIXTH SERIES.—VOL. II, PART III.*

JULY, 1902.

# ON THE CAIRN AND SEPULCHRAL CAVE AT GOP, NEAR PRESTATYN.[1]

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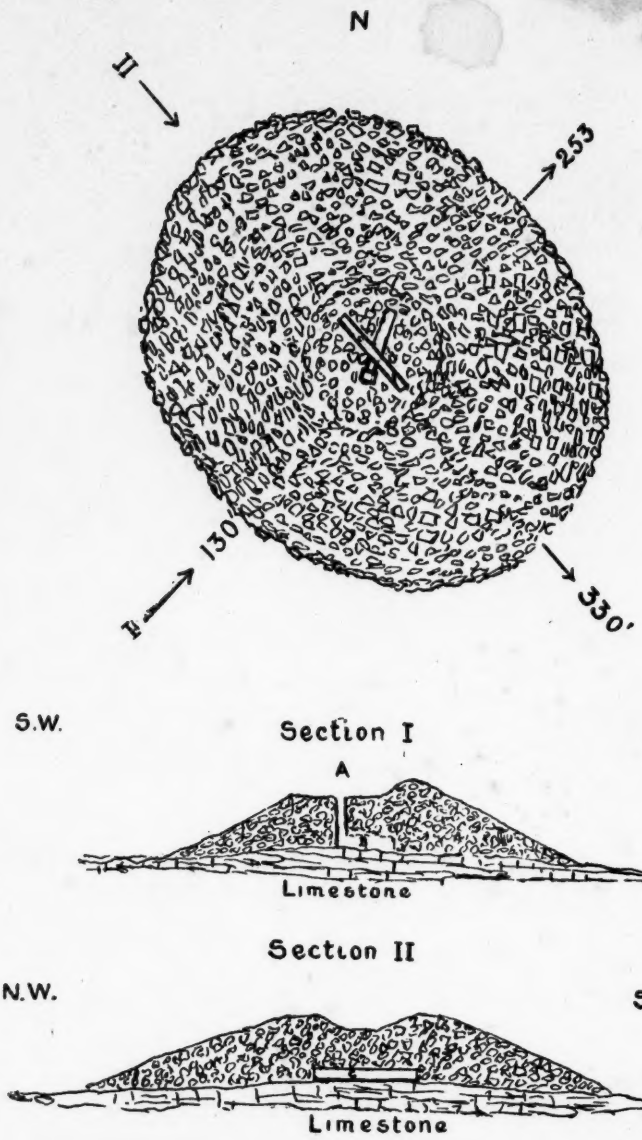
## INTRODUCTION.

THE cairn at Gop first to be described in the following pages stands in a commanding position, at an altitude of 820 ft., at the northern end of the picturesque line of hills forming the eastern boundary of the Vale of Clwyd. It is about two-and-a-quarter miles to the south-east of Prestatyn, on the London and North Western Railway, and about six miles to the east of Rhyl. It commands a magnificent view, westward over the Vale of Clwyd to the Snowdonian range, northward over the Irish Sea, and eastward over the low-lying plain of Cheshire, to Liverpool and beyond. It is

[1] Read June 5th, 1901, and reprinted from *The Archæological Journal*, September, 1901, vol. lviii, pp. 322-341.




Figs. 1, 2, and 3.—Cairn at Gop: Plan and Sections. (Scale, 1 in. = 100 ft.)

recognised generally in the neighbourhood as a tumulus, and is so described in the Ordnance Maps. It is attributed in common talk to Queen Boadicea, in spite of the fact that there is no evidence that the famous Queen of the Iceni ever set foot in that region. In 1886 Mr. Pochin, of Bodnant Hall, who had bought the Golden Grove estate, on which it is situated, asked me to undertake the examination of this conspicuous landmark, at his expense. The following are the results of the work carried on in 1886 and 1887, which I have been unable to publish before, on account of the pressure of other work.

## 1.—The Exploration of the Cairn at Gop.

The cairn is composed of blocks of limestone, of a size easily carried, piled up so as to form an oval, with its long diameter 330 ft., pointing from north-west to south-east, and its short diameter 223 ft. from north-east to south-west (see Plan and Sections, figs. 1, 2, 3). It is 46 ft. high, with a truncated top, which may be due either to the removal of the stone for making field-walls, or by the giving way of a chamber in the area immediately beneath it. It rests on solid limestone rock.

The exploration was begun by sinking a shaft (6 ft. 6 ins. by 4 ft.) in the centre, an operation of considerable difficulty on account of the instability of the limestone blocks, down to the solid rock forming the original surface of the ground. It was found necessary to use heavy timbers to allow of the work being carried on. The original surface was struck at a depth of 26 ft. (see figs. 1, 2, 3). A drift was then made, 6 ft. high and 4 ft. wide, in a north-westerly direction (B of figs. 1 and 2) to a distance of 30 ft., following the original surface of the rock. Two other drifts were also made, C, C, intersecting B in the line of the Section fig. 3. The only remains met with were a few bones of hog, sheep, or goat, and ox or horse, too fragmentary to be

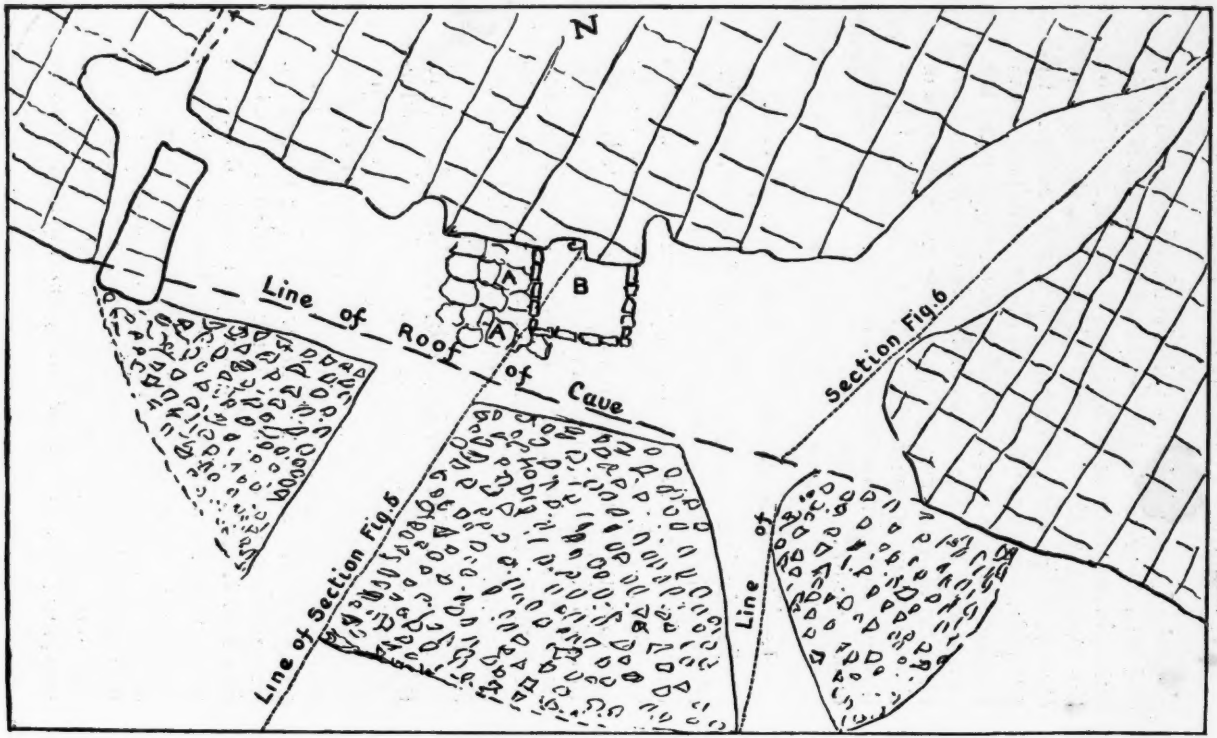



Fig. 4.—Sepulchral Cave, Gop : Plan. (Scale, 1 in. = 10 ft.)

accurately determined. They are, however, of the refuse-heap type usually found in prehistoric habitations and burial-places. We failed to obtain evidence of the archæological age, or of the purpose to which it was put. If, as is usually the case, there was a central burial-place, we missed it. The question cannot absolutely be decided until the whole of the stones have been removed. The timbering necessary for our work was not only very costly, but rendered it very difficult to observe the condition of the interior, even in the small space which was excavated.

The cairn Gop is probably sepulchral, similar to that in the same range of hills to the east, near Mold, used for years as a stone quarry, in which, in 1832, a skeleton was discovered lying at full length, clad in a golden corselet, and adorned with three hundred amber beads. If it be a burial-place, its large size implies that it was raised in memory of some chieftain conspicuous above his fellows.

## 2.—The Sepulchral Cave.

While the cairn was being explored, my attention was attracted to a fox-earth at the base of a low scarp of limestone, 141 ft. to the south-west of the cairn. It occupied a position which I have almost invariably found to indicate the presence of a cavern used by foxes, badgers, and rabbits as a place for shelter. I therefore resolved to explore this, with the assistance of Mr. P. G. Pochin. The fox-earth led us into a cave, completely blocked up at the entrance by earth and stones (figs. 4, 5, 6), and large masses of limestone, which had fallen from the ledge of rock above. This accumulation of *débris* occupied a space 19 ft. in width, and extended along the whole front of the cavern (see fig. 4).

We began operations by cutting two driftways down to the surface of the rock. We then proceeded to clear out the whole of the interior of the cavern, which was

filled very nearly up to the roof with *débris*. It consists of a wide rock-shelter, passing into a narrow passage at the north-eastern and north-western ends. It faces very nearly due south. It contained deposits of various kinds and of widely different ages, the two lower being pleistocene, while the two upper yielded remains which prove that they belong to the prehistoric period. I shall consider these in some detail.

### A.—*The Pleistocene Strata.*

On the rocky floor of the interior of the cave, strewn with large blocks of limestone, was a stiff yellow clay, No. 1 of Sections (figs. 5, 6), from 1 to 2 ft. thick, containing angular stones and pebbles, some of which are derived from rocks foreign to the district, and occurring only in the boulder clay, which lies in irregular patches on the hillsides in the neighbourhood. It contained neither the remains of man nor of the fossil mammalia found in the caves in the Vale of Clwyd.

Above this, and also within the cave, was a layer of grey clay, No. 2 of Sections, containing stones, angular and water-worn, and some of foreign derivation as before. In addition to these there were water-worn, and in many cases perfect, remains of the following animals:

| | |
|---|---|
| Cave-hyæna ... | ... *Hyæna spelæa.* |
| Bison ... ... | ... *Bison priscus.* |
| Stag ... ... | ... *Cervus elaphus.* |
| Reindeer ... ... | ... *C. tarandus.* |
| Roedeer ... ... | ... *C. capreolus.* |
| Horse ... ... | ... *Equus caballus.* |
| Woolly rhinoceros ... | ... *Rhinoceros tichorhinus.* |

Some of these, and more especially the antlers of the reindeer, bore the teeth-marks of hyænas, and had evidently belonged to animals which had fallen victims to those bone-eating carnivores. They did not, however, occur in layers on the floors, occupied at successive times

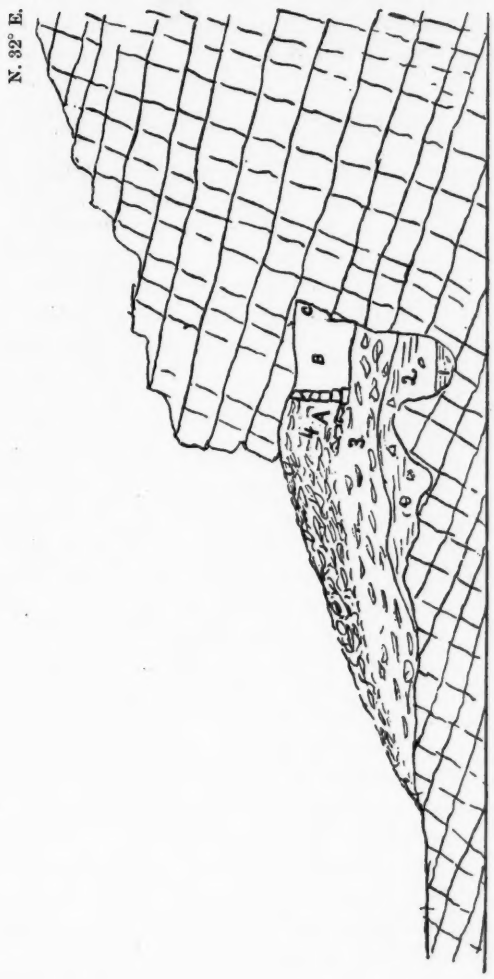



Fig. 5.—Sepulchral Cave, Gop: Section. (Scale, 1 in. = 10 ft.)

by the hyænas, as I have observed in other caves, such as Wookey Hole near Wells, and the Creswell caves near Worksop. They appear to have been washed out of

the original hyæna floors by the action of water, and to have been re-deposited at a time later than the occupation of the cave by hyænas.

### B.—*The Prehistoric Accumulations.*

The upper surface of the grey clay, No. 2 of the Sections, figs. 5 and 6, passed insensibly into the accumulation above, in which the interest principally centres, as it marks the position of the ancient floor of the cave in prehistoric times. It extended nearly horizontally inwards, from a little beyond the entrance to the inner walls of the cave, composed either of limestone or of breccia. On this rested a mixed layer of red earth, broken stalactites, and stones, No. 3 of Sections, containing a mixture of refuse bones of prehistoric age, together with those of pleistocene animals such as reindeer and hyæna, obviously derived from the layer below. Pieces of charcoal were scattered through its mass, together with pot-boilers and fragments of pottery. These were, however, less abundant in the lower portion (No. 3 of Sections), which was about 3 ft. thick, than in the upper (No. 4 of Sections), where in some places there was sufficient charcoal to blacken the accumulation. This upper layer was about 4 ft. thick at the entrance of the cave, shown in section fig. 5, where it abutted directly on a sepulchral chamber B. In the section shown in fig. 6, it was thickest outside, thinning away outwards to the edge of the talus, and inwards into the cavern.

As we were clearing a passage inwards, along the line of Section No. 5, a thick layer of charcoal, marked A on the Plan, fig. 4, covered slabs of limestone at a depth of 4 ft. from the surface, and marked the site of an old fireplace. There were similar blackened slabs, at various levels, in the strata Nos. 3 and 4, in other parts of the area excavated. There were also numerous burnt and broken bones of domestic animals and fragments of coarse pottery. Intermingled with these were

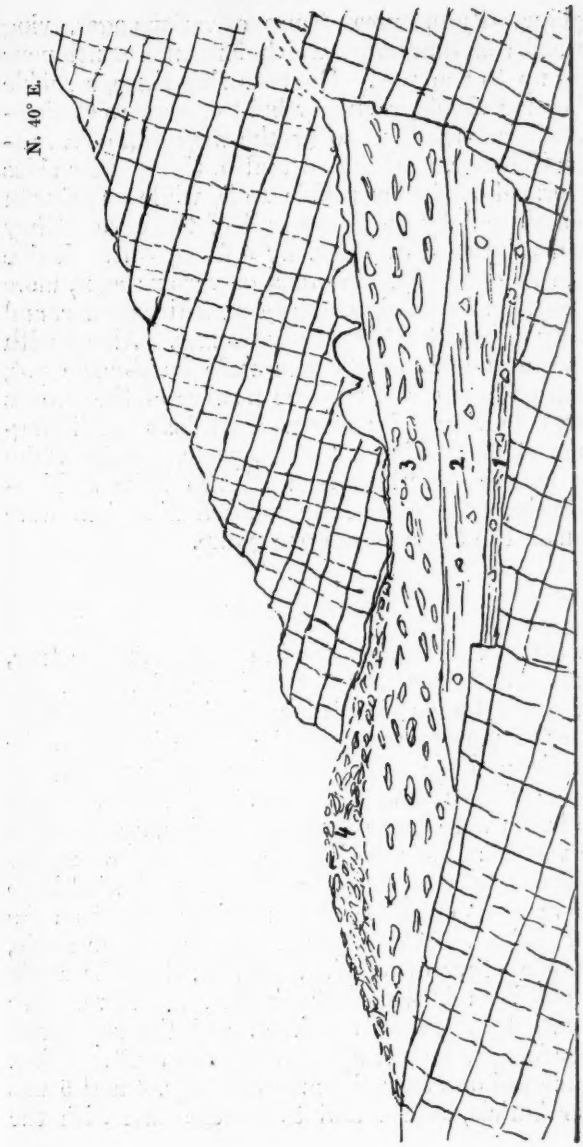



Fig. 6.—Sepulchral Cave, Gop: Section. (Scale, 1 in. = 10 ft.)

a large quantity of human bones, of various ages, lying under slabs of limestone, which formed a continuous packing up to the roof. On removing these, a rubble wall became visible, regularly built of courses of limestone. This turned out to be the west wall of a rectangular chamber, B of figs. 4 and 5, three outer sides being formed of similar rubble walls, while the fourth was constituted by the inner wall of the cave. They enclosed a space 4 ft. 6 ins. by 5 ft. by 4 ft. Inside was a mass of human skeletons of various ages, more than fourteen in number, closely packed together, and obviously interred at successive times. Along with them were the fragments of a rude hand-made pot, ornamented in the herring-bone pattern of the Bronze Age, and showing in its fractured surfaces small fragments of stone sticking out of the paste. A few white quartz pebbles, or "luck stones," two links of Kimmeridge shale, and a carefully polished flint flake were also found, the three last in one group.

### C.—*The Interments.*

The bodies had been interred in a crouching posture, with arms and legs drawn together and folded. In several cases the long bones lay parallel to one another —the left humerus and left fibula, the left ulna, the right tibia, and the right femur, the left humerus, left radius and right fibula—of the same individuals. Some of the bones were in an oblique position, approaching to the vertical. It is obvious that so large a number of bodies as fourteen could not have been buried in so small a space at one time, although it is clear from the natural position of the bones, in one case of an ankle, and in the other of a spinal column, that the whole body had been buried. The bodies, therefore, have been buried at successive times, and the sepulchral chamber is to be looked upon as a family vault. When it became full of bones the area A of figs. 4 and 5 was used for burials, as I found to be the case with the

approaches of the stone-chambered tombs on the opposite side of the valley, near Cefn, described in the *Ethnological Journal*, 1871.

In my opinion the access to the sepulchral chamber was on the west side, in the direction of A of Plan, fig. 4.

### D.—*Cave used for Habitation, and afterwards for Burial.*

On clearing this portion of the cave, we found the section to be as follows:—

| | ft. | in. |
|---|---|---|
| 4. Dark cave earth ... ... ... ... | 3 | 6 |
| 3. Mixed cave earth .. ... ... ... | 3 | 0 |
| 2. Grey cave earth ... ... ... ... | 3 | 0 |
| 1. Stiff yellow clay ... ... ... ... | 1 | 0 |

The stratum No. 4 extended up to the roof of the cavern, and abutted directly on the sepulchral chamber, while No. 3 passed directly underneath it. We may, therefore, conclude that here, as in the sepulchral caves of Perthi-Chwareu and Rhos digre, near Llandegla, in Denbighshire, the cave was used for purposes of habitation before it was used for burial; while it is an open question whether the accumulation No. 4 belongs to the time of the interments. It is probable, however, that the sepulchral chamber was excavated out of it. It is not likely that the same place would be used by the same tribe for habitation after it had been used as a tomb.[1]

### E.—*The Pottery.*

The fragments of pottery are of types repeatedly met with in interments in Britain belonging to the Bronze Age. All are hand-made, coarse, grey in colour, or

[1] These are two out of a group of five Caves of the Neolithic age, explored by me in 1869-1872, and described in *Cave-Hunting*, chap. v.

black, or burnt red, and contain small fragments of stone imbedded in the paste. One specimen found in the refuse heap has a bold overhanging rim, bevelled off on the outside, and adorned with herring-bone marks; below this is a shoulder indented with a single row of circular finger marks, the body of the vessel being in addition ornamented with at least two horizontal lines of small triangular impressions. With the exception of the last feature it is of the same type as that figured by Hoare in *Ancient Wilts*,, and described by Thurnam in *Archæologia*, vol. xliii, p. 61.

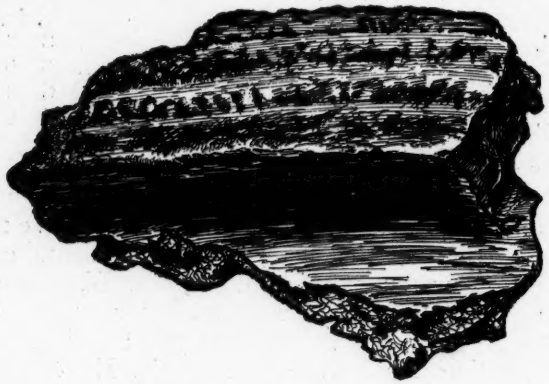


Fig. 7.—Fragment of Urn. (Full size.)

The fragments of pottery found inside the sepulchral chamber belong to an urn with an overhanging rim (fig. 7), adorned with herring-bone pattern both on the outside and on the inside. A small fragment of the same vase proves also that the body was ornamented with four horizontal bands of oblique lines, making two complete herring-bone patterns. The urn to which it belongs is of a type common in interments and refuse-heaps of the Bronze Age throughout the British Isles.

### F.—*The Links.*

Two oval articles found close to the ground flake inside the sepulchral chamber, and resembling links (fig. 8), are made of jet or Kimmeridge coal. They are carefully rounded and polished, and each has a large oval perforation in the centre. They are of unequal size, and present the following measurements :—

| | mm. | mm. |
|---|---|---|
| Length | ... 54 | ... 70 |
| Width | ... 22 | ... 29 |
| Height | ... 16 | ... 27 |
| Perforation | . 29 × 14 | .. 33 × 15 |

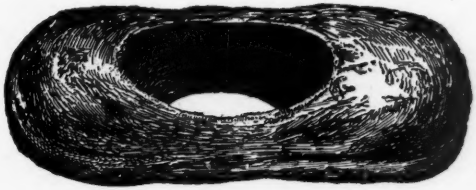


Fig. 8.—Link of Jet or Kimmeridge Coal. (Full size.)

In both the perforation has been formed by scraping, apparently with a flint flake. On neither is there any trace of wear. They were probably intended for dress-fasteners. They are of the same pattern as that figured by Thurnam in *Archæologia*, vol. xliii, p. 229, fig. 206, from a round barrow at Thixendale, in the East Riding of Yorkshire, where it was found under the hip of a doubled-up skeleton, and practically under the same conditions as those under notice. It is assigned by Thurnam to the Bronze Age.

### G.—*Flint Flakes.*

Several splinters of flint, and one rough flake of chert, were discovered in the refuse-heap, and need no further notice. A flint implement, however, found

inside the sepulchral chamber is of a rare type (fig. 9). It rested close to a doubled-up human femur, tibia, and fibula. It is a smoothly polished flint flake, 71 mm. long, 14 to 19 mm. wide, and only 3 mm. thick. It has been made by grinding down a flake so as to preserve the natural curvature of the flat side, and to remove the rib on the back, and to give it the appearance of the blade of a paper knife. The edges are bevelled bluntly off, and the end is rounded. Similar objects have been met with, as Evans points out (*Ancient Stone Implements*, pp. 290, 291), in Yorkshire. Their use is

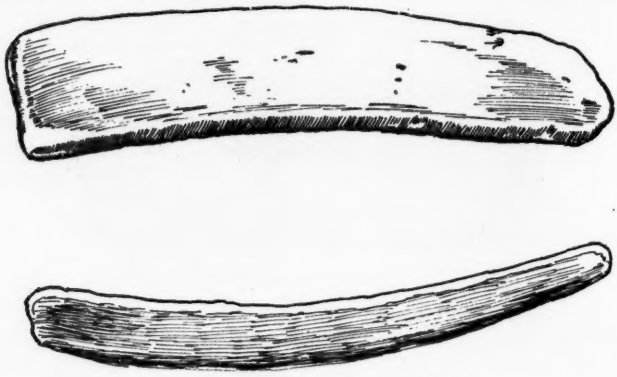


Fig. 9.—Flint Flake. (Full size.)

uncertain. The association of an implement of this type with Bronze Age pottery in this sepulchral chamber fixes the archæological age of the whole group.

## H.—*The Animal Remains.*

The remains of the animals found in the two upper strata, 4 and 5 of figs. 4 and 5, consist of the wild and domestic animals usually associated together in prehistoric refuse-heaps. All are more or less broken and burnt. The wild animals of the following list need no special notice. It may, however, be remarked that the

fox was an inhabitant of the cave up to the time of our digging, and that the remains of the horse may belong to a domestic and not to a wild form.

PREHISTORIC REMAINS FROM REFUSE-HEAP.

| | | |
|---|---|---|
| | *Wild.* | |
| Fox | ... ... | *Canis vulpes.* |
| Marten | ... ... | *Mustela martes.* |
| Badger | ... ... | *Meles taxus.* |
| Horse | ... ... | *Equus caballus.* |
| Stag | ... ... | *Cervus elaphus.* |
| Roe | ... ... | *C. capreolus.* |
| Hare | ... ... | *Lepus timidus.* |
| | *Domestic.* | |
| Dog | ... ... | *Canis familiaris.* |
| Horse | ... ... | *Equus caballus.* |
| Shorthorn | ... ... | *Bos longifrons.* |
| Sheep | ... ... | *Ovis aries.* |
| Goat (?) | ... ... | *Capra hircus.* |
| Hog | ... ... | *Sus scrofa.* |

The remains of the domestic were greatly in excess of those of the wild animals, and the most abundant were those of the sheep. These, as may be seen by the following Table, based upon the valuable observations of the late General Pitt-Rivers, belong to a breed closely allied to that of the Romano-British villages of Woodcuts and Rotherley,[1] as well as to the recent breed of St. Kilda, the Highland, and the Heather Sheep.[2] They were, however, thicker in the leg. They are now represented by the active and slender-legged hill sheep.

[1] *Excavations in Cranborne Chase*, vol. i, Table, p. 188; vol. ii, Table, p. 225.

[2] *Op. cit.*, vol. ii, Table, Sheep, p. 209 *et seq.*

TABLE OF MEASUREMENTS OF LEG-BONES OF SHEEP.

| — | Length. | Least Circumference. | Long Diameter of Proximal Articulation. | Short Diameter of Proximal Articulation. | Long Diameter of Distal Articulation. | Vertical Measurement of Distal Articulation (tape). |
|---|---|---|---|---|---|---|
| Metacarpals, Gop Cave | 137 | 48 | 23 | 18 | 27 | 33 |
| | 125 | 40 | 22 | 16 | 24 | 31 |
| | 125 | 40 | 21 | 15 | 25 | 25 |
| | 112 | 40 | 20 | 13 | 22 | 25 |
| Average ... ... | 127 | 42 | 21 | 15 | 24 | 28 |
| Metatarsals, Gop Cave | 126 | 56 | 18 | — | 22 | 28 |
| | 125 | 38 | 20 | 20 | 23 | 30 |
| | 122 | 33 | 20 | 19 | 21 | 25 |
| | 114 | 37 | 18 | 18 | 22 | 25 |
| Average ... ... | 122 | 36 | 19 | 19 | 22 | 27 |

| — | Romano-British Villages. | | | | Average. | Dorset Horned Ram. | Hampshire Ewe. | St. Kilda Ram. | St. Kilda Ewe. | Highland Ewe. | Heather Ewe. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Woodcuts. | | Rotherley. | | | | | | | | |
| Metacarpals :— | | | | | | | | | | | |
| Length ... ... | 137 | 113 | 137 | 109 | 124 | 136 | 139 | 112 | 107 | 119 | 111 |
| Least circumference . | 39 | 32 | 42 | 44 | 39 | 55 | 49 | 36 | 34 | 39 | 36 |
| Metatarsals :— | | | | | | | | | | | |
| Length ... ... | 139 | 114 | 126 | 119 | 124 | 147 | 150 | 124 | 115 | 128 | 116 |
| Least circumference . | 34 | 30 | 32 | 29 | 31 | 53 | 49 | 34 | 32 | 38 | 34 |

The remains of the hog belong mostly to very young animals. The same remark applies also to the remains of the Shorthorn. Those of the dog were too imperfect to allow of any conclusion as to the breed.

The whole group of domestic animals is identical with those which I have described from the Neolithic caves and burial-places in the district. It is also just such an accumulation as may be found in the refuse-

heaps, in the homesteads in those parts of Wales into which the larger breeds of sheep and cattle, common in the low country, have not yet penetrated. This fact establishes a continuity of farming operations in Wales, from the Neolithic Age through the Bronze and Iron Ages down to the present time. This continuity, as we shall presently see from the examination of the human remains, exists also with regard to the farmers, the great majority of the human remains belonging to a race still represented by the small dark Iberic folk of the secluded villages.

## I.—*The Human Remains of the Two Races.*

The human remains belong to more than fourteen individuals. The skulls, sufficiently perfect for measurements, reveal the presence of two distinct anthropological types: the one, as shown in the accompanying Table, belonging to the long-oval-headed race, proved, by my discoveries in the sepulchral caves and tombs, to have inhabited the district in the Neolithic Age. The chief characters observable in the skulls are the mark of a vertical bandage across the head from ear to ear. The forehead is well developed, cheek-bones inconspicuous, nasals prominent, chin square and narrow, tending in some to a point. In one old adult the frontal suture is open.

| — | Length. | Breadth. | Height. | Cephalic Index. | Height Index. |
|---|---|---|---|---|---|
| | mm. | mm. | mm. | mm. | mm. |
| 1 Skull, sepulchral chamber, Gop | 186 | 139 | 142 | .742 | .763 |
| 2 „ „ „ „ | 196 | 135 | 145 | .688 | .790 |
| 5 „ „ „ „ | 191 | 137 | — | .712 | — |
| Average of 8 skulls, Perthi Chwareu cave[1] ... ... | 180 | 140 | 143 | .765 | .784 |
| Skull from Cefn caves[1] ... | 188 | 145 | 132 | .770 | .702 |
| Average of 4 skulls, Cefn tumulus[1] ... ... ... ... | 187 | 141 | 148 | .754 | .791 |

[1] Dawkins, *Cave-Hunting*, "Description of Human Remains," by Professor Busk, pp. 166-187.

The second type is represented by two fragmentary skulls, Nos. 3 and 6 of the following Table :—

| — | Breadth. | Least Frontal Breadth. | Greatest Frontal Breadth. | Parietal Breadth. | Frontal Arc. | Parietal Arc. |
|---|---|---|---|---|---|---|
| No. 3, Round skull, sepulchral chamber, Gop | 152 | 95 | 113 | 152 | 135 | 127 |
| No. 6, „ „ „ | 155 | 107 | 134 | 154 | 150 | 152 |
| No. 1, Long-oval skull ... | 139 | 101 | 118 | 134 | 127 | 122 |
| No. 2, „ „ | 135 | 97 | 113 | 145 | 127 | 117 |

No. 3 belongs to a woman, and presents the facial characteristics of the round-headed type, being prognathous and having high cheek-bones. No. 6 is an adult male. Both belong to the round-headed Goidels, the invaders of Britain in the Bronze Age, whose tombs prove that they penetrated into the remotest of the British Isles in the western sea. Nos. 1 and 2 are placed in the Table for comparison.

The skeletons present the following characters :— The humeri sufficiently perfect to be examined are thirteen in number, out of which two are peforated at the same point immediately behind the ulnar articulation. The seven ulnae and the four radii present no points of interest. Their dimensions are given in the following Table :—

| — | Length. | Least Circumference. | Horizontal Measurement of Proximal Articulatic n. | Vertical Measurement of Proximal Articulation. | Horizontal Measurement of Distal Articulation. | Vertical Measurement of Distal Articulation. |
|---|---|---|---|---|---|---|
| Humerus ... ... | 359 | 69 | 69 | 69 | 49 | 49 |
| | 324 | 64 | 61 | 59 | 41 | 41 |
| Ulna ... ... ... | 293 | 46 | — | — | — | — |
| | 145 | 41 | — | — | — | — |
| Radius ... ... ... | 267 | 44 | — | — | — | — |
| | 269 | 47 | — | — | — | — |

The femora, twelve in number, are all carinated with the exception of three, and agree in every particular with those found in the Neolithic tomb at Cefn, and the Neolithic caves at Perthi Chwareu and Rhos digre (*op. cit.*, pp. 166, 187). The carination is a character which stands in close relation to the platycnemism which is presented by the associated tibiae. Their dimensions are as follows :—

| — | Length. | Least Circumference. | Horizontal Measurement of Proximal Articulation. | Vertical Measurement of Proximal Articulation. | Horizontal Measurement of Distal Articulation. | Vertical Measurement of Distal Articulation. |
|---|---|---|---|---|---|---|
| 1 Femur right, not carinated | 465 | 87 | 96 | 89 | — | 41 |
| 2 Femur left, carinated ... | 508 | 72 | 107 | 95 | 82 | 46 |
| 4 Femur right, carinated ... | 440 | 87 | — | — | — | 41 |
| 3 Femur right, carinated ... | 508 | 97 | 84 | 97 | — | 31 |

The following are the measurements of the tibiae :—

| — | | Length. | Circumference. | Vertical Diameter of Shaft at 38 mm. below Proximal Articulation. | Transverse Diameter of Shaft at 38 mm. below Proximal Articulation. |
|---|---|---|---|---|---|
| 1 | Platycnemic tibia ... | 361 | 79 | 36 | 23 |
| 2 | | 422 | 89 | 38 | 24 |
| 3 | | 422 | 89 | 36 | 23 |
| 4 | | — | — | 32 | 18 |
| 5 | | — | — | 34 | 20 |
| 6 | | — | — | 36 | 23 |
| 7 | | — | — | 33 | 22 |
| 8 | | — | — | 33 | 17 |
| 9 | Normal tibia ... ... ... | — | — | 28 | 33 |

Only two out of the thirteen tibiae examined were not platycnemic, and one of these belonged to a young individual. The flattening of the bone is of the same order as that presented by the Neolithic remains found in the caves at Perthi Chwareu and the cairn near Cefn, described and figured in my work on *Cave-hunting* (pp. 167 *et seq.*). It consists of a prolongation of the shaft, sometimes in front, and at other times behind the long axis of the bone, and is, as Professor Busk pointed out in 1871 (*Journal of Ethnological Society*, January, 1871), due to the free use of the feet, never trammelled by shoes or sandals, and therefore more prehensile than the normal foot of civilisation. It is not a character of race, being found in the Negro, in the Mongolian tribes of North America, and rarely in Europeans. It goes with bare feet. If the last two figures in the above Table be compared with the rest, the difference will be seen between the normal tibia and those which are flattened "en lame de sabre."

The most perfect of the fibulae is 262 mm. long, with a circumference of 30 mm.

### J.—*The Fusion of the Two Races.*

It is obvious from the above anthropological details that the great majority of the people who used the Gop cave as a family vault were of the same physique as the Iberic dwellers in the district in the Neolithic Age, and from the presence of the round-headed Goidelic type that the fusion of the Iberic with the Goidelic race had already begun in this district in the Bronze Age. It is the first observed case of the fusion of the two races which has been going on in Wales from that time to the present day. Before, however, the fusion between the two races became so complete as to form a people like the Celt-Iberian, the Brythonic invaders conquered alike the Goidel and the Iberian in this region, and absorbed them into their mass so that all became one people. Just as the Iberic tongue has been so completely lost in

in the Goidelic that no clear trace of it is to be found in Wales, so the Brythonic gradually displaced the Goidelic with the exception of a few place and river names, and Welsh and not Gaelic became the speech of the country. It is not a little remarkable that in all this flux and change, ranging over an unknown series of centuries, the small dark Iberic aborigines of the Neolithic Age should have lived on with but little physical change, so as to be still clearly marked off from the races who have invaded them at successive times.

### K.—*Relation of Cairn to Sepulchral Cave.*

Two questions naturally arise. What is the relation of the cairn to the sepulchral cave a short distance below it? Were the cairn builders the same people who buried the dead in the cave? In my opinion, it is most probable that the cairn marks the site of the burial-place, and that both belong to the Bronze Age and to the same people.

# THE CHEVRON AND ITS DERIVATIVES:

## A Study in the Art of the Bronze Age.

BY J. ROMILLY ALLEN, F.S.A.

The art of the Bronze Age in Europe is both of a symbolical and decorative character. The principal symbols employed are:—

The Swastika.
The Triskele.
The Cup and Ring.
The Ship.
The Axe.

It is probable that most of these were connected with sun worship.[1]

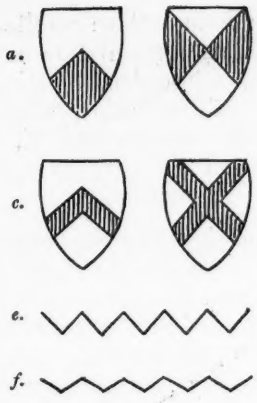
The chief decorative art motives which were prevalent during the Bronze Age are as follows:—

The Chevron.
The Concentric Circle.
The Spiral.
The Winding Band.

The present Paper will be devoted to the consideration of the chevron and its derivatives, namely, the triangle, lozenge, saltire, and hexagon. Some of the terms used are taken from the now happily obsolete pseudo-science of heraldry. Their meaning will be understood by a reference to Fig. 1.

It will be seen that the chevron consists of two straight lines or narrow bars inclined towards each other so as to meet in a point, the form thus produced being that of the letter **V**. Now the chevron,

[1] See J. J. A. Worsaae's *Danish Arts*, p. 68.




(*a*) Party per Chevron.
(*b*) Party per Saltire.
(*c*) Chevron.
(*d*) Saltire.
(*e*) Indented.
(*f*) Dancettée.

Fig. 1.

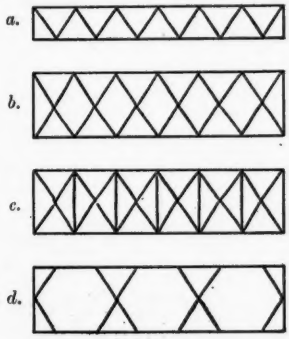
or **V**, is capable of being combined in the following ways :—

**W**.—Two chevrons, with the points facing in the same direction, placed side by side.

**◇**.—Two chevrons, with the points facing in opposite directions, placed with the open sides meeting.

**X**.—Two chevrons, with the points facing in opposite directions, placed with the points meeting.

By repeating the **W**, **◇**, and **X**, each in a horizontal row, the patterns shown on Fig. 2 are obtained.

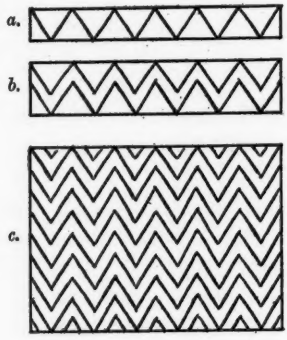



(*a*) The Triangle or Chevron Border.
(*b*) The Lozenge Border.
(*c*) The Saltire Border.
(*d*) The Hexagon Border.

Fig. 2.

It will be noticed that the same pattern results from repeating a series of ◇'s in a horizontal line as from repeating a series of X's, so that in order to distinguish the lozenge border from the saltire border, it is necessary to introduce a vertical line between each X. The hexagon border is derived from the lozenge by omitting every other X.

It is a principle in geometrical ornament that for each pattern composed of lines there is a corresponding pattern in which bars of uniform width are substituted for lines. Another way of stating the same proposition is, that for each pattern composed of geometrical figures (squares or hexagons, for instance) there is a corresponding pattern produced by moving the figures apart in a symmetrical manner so as to leave an equal interspace between them. This principle is illustrated by Fig. 3, where a zigzag bar is substituted for the zigzag line of the triangle or chevron border.




(*a*) Line Chevron Border.
(*b*) Bar Chevron Border.
(*c*) Surface Pattern, produced by repeating either of the preceding.

Fig. 3.

Then, again, another set of patterns may be derived from those composed of lines or plain bars, by shading alternate portions of the design as in chequer-work. Thus on Fig. 4 are shown three different ways of

shading the chevron border, and on Fig. 5 the method of shading the patterns on Fig. 3.

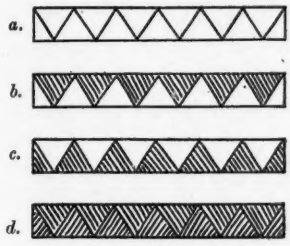



Fig. 4.

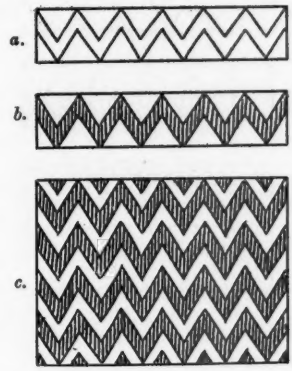



Fig. 5.

Fig. 4.—(*a*) Line Chevron Border.
(*b*, *c*, and *d*) Different Methods of Shading (*a*).

Fig. 5.—(*a*) Bar Chevron Border.
(*b*) The same as (*a*), but shaded.
(*c*) Surface Pattern, produced by repeating (*b*).

A few new patterns (see Fig. 6) may be produced by placing the chevron with the point of the V facing to the right or left, thus, < or >, instead of upwards or downwards, thus, Λ or V.

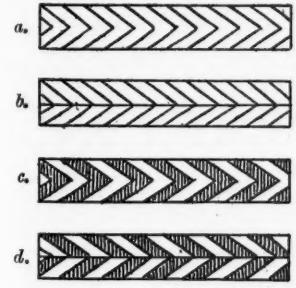



Fig. 6.

(*a*) Chevron Border, with V's placed thus > >.
(*b*) The same as (*a*), but with a horizontal line through the points of the V's.
(*c*) The same as (*a*), but shaded.
(*d*) The same as (*b*), but shaded.

Figs. 7 to 10 give the triangular patterns, plain and shaded, produced by repeating the chevron border (see Fig. 2, *a*).

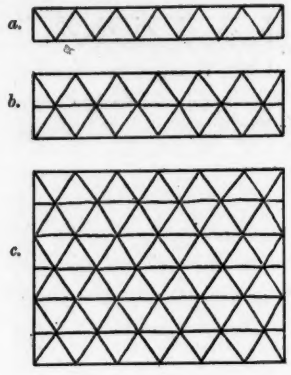



Fig. 7.

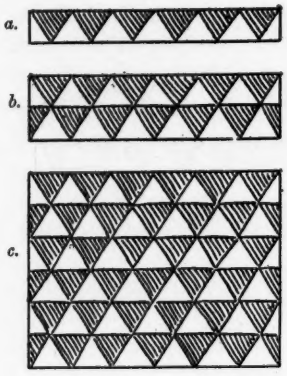



Fig. 8.

Fig. 7.—(*a*) Single Border, composed of Triangles.
(*b*) Double Border, composed of Triangles, with the points of all the triangles meeting.
(*c*) Surface Pattern, composed of Triangles, with the points of all the triangles meeting.

Fig. 8.—(*a*, *b*, and *c*) The Patterns shown on Fig. 7, shaded.

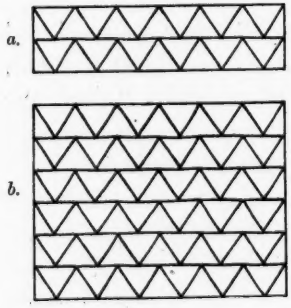



Fig. 9.

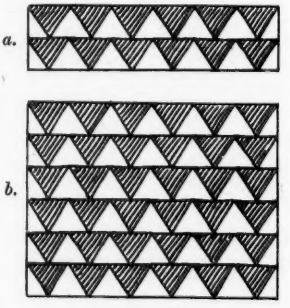



Fig. 10.

Fig. 9.—(*a*) Double Border, composed of Triangles, with the points of the triangles in one row falling in the centres of the bases of triangles in the row above.
(*b*) Surface Pattern, composed of Triangles, arranged in the same way as in the preceding.

Fig. 10.—(*a* and *b*) The Patterns shown on Fig. 9, shaded.

The patterns derived from the lozenge are shown on Figs. 11 to 18.

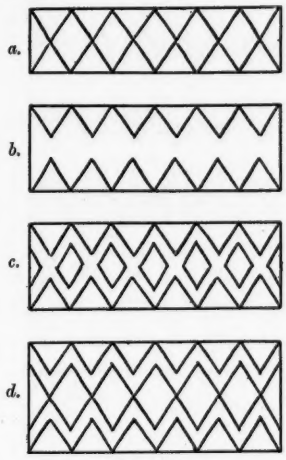



Fig. 11.

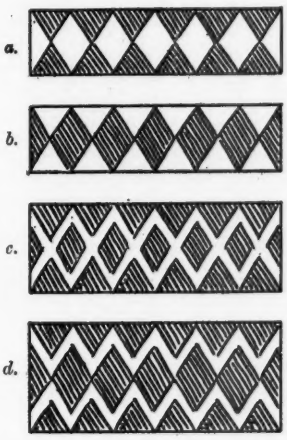



Fig. 12.

Fig. 11.—(*a*) Lozenge Border, composed of two sets of Chevrons, with their points facing in opposite directions.
(*b*) The same as (*a*), but with the Chevrons set apart.
(*c*) The same as (*a*), but with bars substituted for lines.
(*d*) The same as (*b*), but with bars substituted for lines.

Fig. 12.—(*a*) Lozenge Border, with Triangles or Chevrons, shaded.
(*b*) Lozenge Border, with Lozenges shaded.
(*c*) The same as Fig. 11 (*c*), but shaded.
(*d*) The same as Fig. 11 (*d*), but shaded.

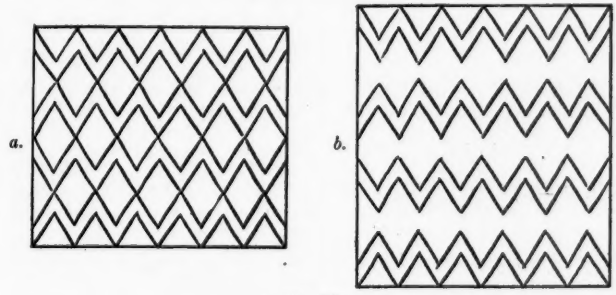



Fig. 13.

Fig. 13.—(*a*) Surface Pattern, produced by repeating the Bar-Chevron Border, so that the points of all the Chevrons meet.
(*b*) The same as (*a*), but with the Chevrons set apart.

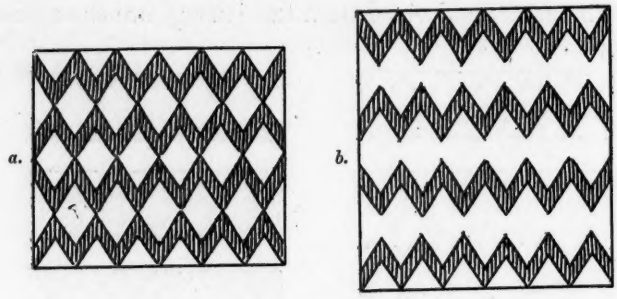



Fig. 14.

Fig. 14.—(*a*) The same as Fig. 13 (*a*), but shaded.
(*b*) The same as Fig. 13 (*a*), but shaded.

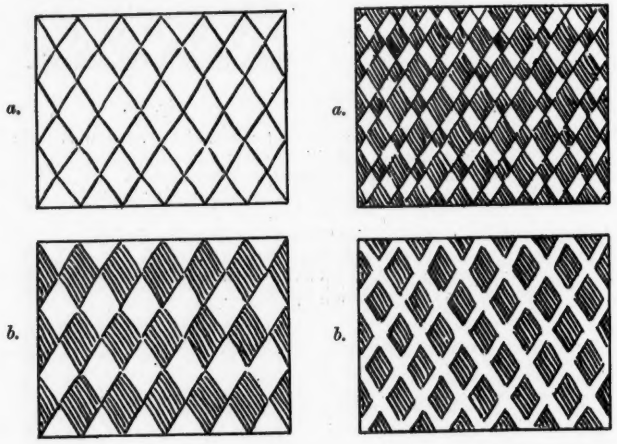



Fig. 15. Fig. 16.

Fig. 15.—(*a*) Line Lattice-work Surface Pattern, produced by the repetition of either the Chevron Border, Fig. 2 (*a*), or the Lozenge Border, Fig. 2 (*b*).

(*b*) The same as (*a*), but shaded.

Fig. 16.—(*a*) The same as Fig. 15 (*b*), but with shaded Lozenges of two different sizes.

(*b*) Lattice-work Surface Pattern ; the same as Fig. 15 (*b*), but with diagonal white bars instead of lines.

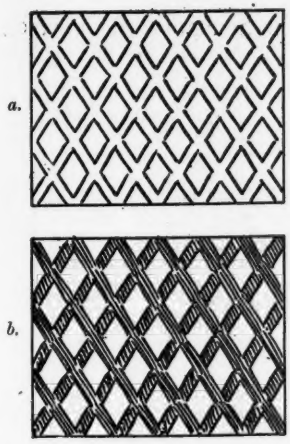



Fig. 17.

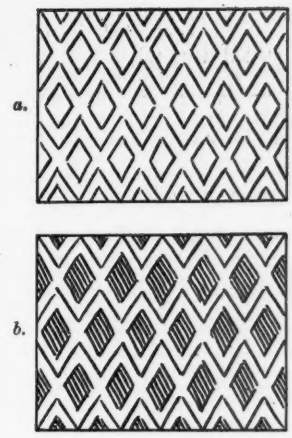



Fig. 18.

Fig. 17.—(*a*) Bar Lattice-work-Surface Pattern ; the same as Fig. 15 (*a*), but with diagonal bars instead of lines.
(*b*) The same as (*a*), but shaded.
Fig. 18.—(*a*) Surface Pattern, produced by repeating Fig. 11 (*c*).
(*b*) The same as (*a*), but shaded.

The patterns derived from the saltire are shown on Fig. 19.

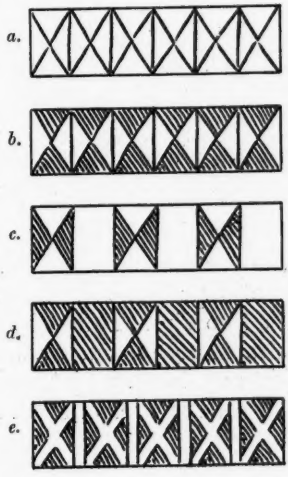



Fig. 19.

(*a*) Saltire Border Pattern.
(*b*, *c*, *d*) Saltire Border Pattern, in different ways.
(*e*) The same as (*a*), but with bars instead of lines.

The patterns derived from the hexagon are shown on Figs. 20 and 21.

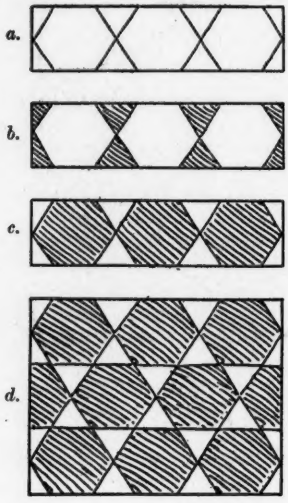



Fig. 20.

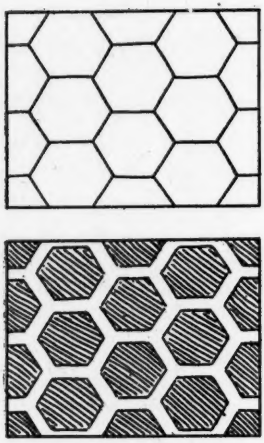



Fig. 21.

Fig. 20.—(*a*) Hexagon Border Pattern, derived from the Lozenge Border, Fig. 2 (*b*) by leaving out every other X.

(*b*) The same as (*a*), but with the Triangles shaded.

(*c*) The same as (*a*), but with the Hexagons shaded.

(*d*) Surface Pattern, composed of Hexagons and Triangles; produced by repeating (*c*), so that the Hexagons in one horizontal row adjoin the Triangles in the next.

Fig. 21.—(*a*) Hexagon Surface Pattern, probably derived from Fig. 11 (*b*), by drawing straight lines between the points of each of the Chevrons.

(*b*) The same as (*a*), but with bars instead of lines, and having the Hexagons shaded.

Having now explained the geometrical theory of the construction of the ornamental patterns derived from the chevron, we will proceed to show how they were applied practically in the Bronze Age to the decoration of pottery, metal work, objects of stone and jet, and the sculptured stones used in the construction of chambered cairns and sepulchral cists.

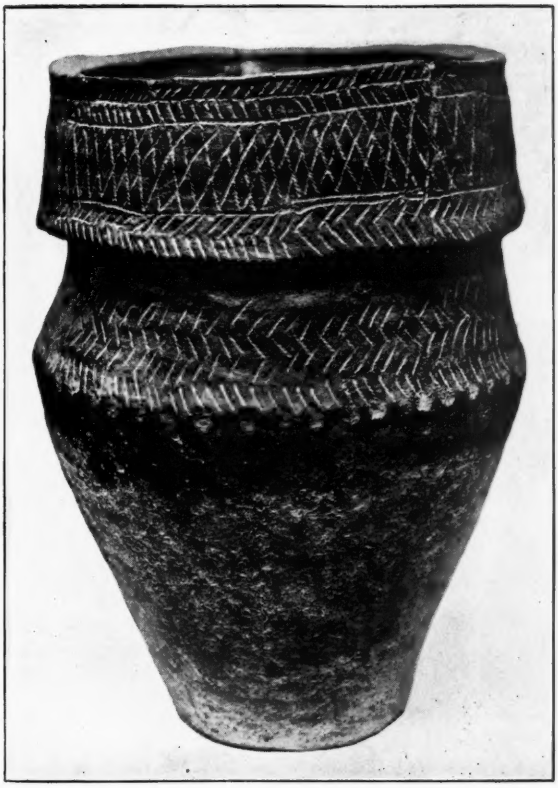


FIG. 22. BRONZE AGE URN FROM LAKE, WILTSHIRE.

(Height, 1 ft. 3¼ ins.)

## Pottery.

With the exception of the Heathery Burn Cave,[1] Yorkshire, and the small rectangular camps at Rushmore and Handley Hill,[2] Dorset, hardly any inhabited sites are known in Great Britain which can be attributed to the Bronze Age. Consequently, nearly all the pottery of this period to be seen in our public museums or private collections has been derived from the exloration of round barrows and other sepulchral remains. Although vessels, which appear to have been originally intended to be used for culinary purposes,[3] are occasionally found with sepulchral deposits of the Bronze Age, their number is so small as compared with the vessels made specially either to hold the ashes of the deceased or to be buried with him, that they may be regarded as a *quantité négligeable*.

The chief characteristics of the pottery of the Bronze Age are:—

(1) That it is hand-made and not turned on a wheel.
(2) That the paste is often coarse and composed of clay, mixed with pounded stone and sand.
(3) That it is imperfectly fired, although not sun-baked, as has sometimes been erroneously stated.
(4) That it is unglazed; but in the better class of vessels a smooth surface is produced by some method of polishing.
(5) That the surface decoration is always rectilinear and geometrical.
(6) That the ornament is produced by impressing a twisted cord on the moist clay, by engraving with a pointed implement, by stamps, and by the use of the thumb-nail.

The sepulchral pottery of the Bronze Age has been

[1] *Archæologia*, vol. liv, p. 87.

[2] Gen. Pitt-Rivers's *Excavations in Cranbourne Chase*, vol. iv, pp. 1 and 46.

[3] *Archæologia*, vol. xliii, p. 338.

divided by most writers on the subject into four classes, namely :—

(1) Cinerary urns.
(2) Incense cups.
(3) Food vessels.
(4) Drinking cups.

The classification is a convenient one, and has been accepted by such high authorities as Canon W. Green-

Fig. 23.—Bronze Age Urn from Lake, Wiltshire. Height, 1 ft. Scale, ¼ linear.

well and Dr. J. Thurnam, but it must be distinctly understood that it is the cinerary urn alone which has an established right to its title, on the basis of proved facts. The uses of the other three classes of urns are purely conjectural, so that when we speak of an incense cup, a food vessel, or a drinking cup, we merely mean an urn of a particular type, each of which may be recognised by the following special peculiarities :—

*Cinerary Urns.*—These are the largest of the sepulchral urns, and vary in height from 6 ins. to 2 ft. The most common kind has a wide mouth, a narrow base, and a deep overhanging rim, which is usually ornamented, both on the outside and on the inside round the top. Below the rim there is often a slightly hollowed moulding, also ornamented. The lower part of the urn which slopes inwards to the base is almost always left plain. There are other kinds, with a greater number of shallow mouldings and more elaborate decoration. On the other hand, a type of cinerary urn, found chiefly in Wilts and Dorset, is nearly cylindrical in shape, and ornamented in the rudest possible manner. The Cornish cinerary urns are nearly as simple in form, but they are provided with loop-handles, and

Fig. 24.—Bronze Age Urn from Beckhampton, Wilts. Scale, $\frac{2}{3}$ linear.

have a deep band of ornament round the rim, which, however, does not overhang. Cinerary urns are generally more coarsely made than the other classes of sepulchral vessels, and the paste is composed of clay mixed with pounded stone. Although cinerary urns, as their name implies, were made to hold the ashes of the deceased, yet in a few instances urns of this type, but not containing cremated bones, have been found with unburnt burials.

*Incense Cups.*—These are the smallest of the sepulchral urns, and vary in height from $1\frac{1}{2}$ ins. to 3 ins. The most common form is that of a small cup with either an expanded or contracted mouth. Incense cups are often provided with perforated holes for suspension. They seldom have mouldings, but in many cases the sides are formed of openwork pierced right through the thickness of the vessel. A type peculiar to Wilts,

called the "grape cup," is decorated with a large number of small projecting knobs. The whole of the exterior surface of the incense cup is generally ornamented, including the bottom. Incense cups are never found except with burnt bodies. The vessels are placed either upon the cremated bones or amongst them, but scarcely ever, except accidentally, containing them. As often as not they occur within a large cinerary urn.

*Food Vessels.*—These are smaller than the cinerary urns, and larger than the incense cups. They vary in height from 4 ins. to 5 ins. The usual shape is that of a shallow bowl, with a wide mouth, thick lip, and a narrow base. The diameter generally expands towards the middle and contracts slightly

Fig. 25.—Bronze Age Urn from Aldbourne, Wiltshire. Height, 3½ ins. Scale, ½ linear.

towards the top, but more towards the bottom. Round the part where the vessel is widest there is often a hollow fluted moulding, with small perforated projections at intervals, apparently for suspension by means of a cord. In some specimens the projection has survived as a useless ornament, the perforation being absent. The decoration of the food-vessel type of urn, which is more elaborate and beautiful, especially in the Irish examples, than in the case of any other, consists of a skilful combination of mouldings, sinkings, and surface ornament. Food vessels, except in a few rare instances, are exclusively the accompaniment of unburnt bodies, and are placed either at the head or the feet of the skeleton.

*Drinking Cups.*—These are taller in proportion to their width than food vessels, and average from 6 ins. to 9 ins. high. The

FIG. 26. URN OF FOOD VESSEL TYPE FROM KILMARTIN, ARGYLLSHIRE.

(Height, 5¼ ins.)

shape of the drinking cup is more uniformly the same than in the case of the other classes of sepulchral urns. The diameter is contracted at about half the height of the vessel; below this it bulges out into a nearly globular form, and above it expands outwards, so as to make the mouth wider than the base. In most cases the curves of the side are graceful and uniform, but in some instances there is a distinct angle at the point where the contraction of the vessel is greatest and the curve changes its direction. Other variations of form are produced by raising

Fig. 27.—Bronze Age Urn from Alwinton, Northumberland. Height, 5 ins. Scale, ½ linear.

or lowering the level of the point where the greatest amount of contraction occurs, so as to make the urn either a low or a high brimmed one, Drinking cups hardly ever have mouldings, and the ornament usually consists of horizontal bands, chevrony patterns, triangular or lozengy compartments, etc., covering the entire exterior surface. This type of vessel has thinner sides, better paste, and greater finish than any other kind of sepulchral pottery. Drinking cups are scarcely ever associated with cremated burials, and are generally found placed near the shoulders of an unburnt skeleton.

The geographical distribution of the four different classes of sepulchral urns is as follows :—

*Cinerary urns*[1] occur pretty generally throughout the whole of Great Britain, but in Ireland and Argyllshire they are more elaborately ornamented than elsewhere, and of a shape somewhat resembling a food-vessel.

Fig. 28.—Bronze Age Urn from Goodmanham, Yorkshire. Scale, ½ linear.

*Incense cups*[2] are never found except with cremated burials, and their geographical distribution corresponds very nearly with that of the cinenary urns. Canon Greenwell says that they are "found in the Orkney Islands, and from thence throughout the

[1] W. Greenwell's *British Barrows*, p. 66; J. Thurnam in *Archæologia*, vol. xliii, p. 345.

[2] W. Greenwell's *British Barrows*, p. 74; J. Thurnam in *Archæologia*, vol. xliii, p. 359.

FIG. 29. BRONZE AGE URN FROM RUDSTONE, YORKSHIRE.

(Height, 8½ ins.)

whole of Britain, to the extreme limit on the south-west; they are, however, very uncommon in Dorsetshire, and the neighbouring districts to the north and west of that county. They also occur in Ireland."

*Food vessels*[1] are entirely absent in Wilts and Dorset; they occur with greater frequency as we go northward; in Staffordshire, Derbyshire, Yorkshire, Northumberland, and Scotland they are common; and in Ireland they are more common than anywhere else.

*Drinking cups*[2] occur throughout England, Wales, and Scotland, but are entirely wanting in Ireland; they are twice as common in Wilts as in Staffordshire and Yorkshire, and comparatively rare in Yorkshire.

It seems probable that the drinking cups are the most ancient, the food vessels rather more recent, and the cinenary urns and incense cups the latest in point of age. The reasons for thinking that the drinking cups are the oldest are (1), that they are invariably associated with unburnt burials and often with implements of flint and polished stone; and (2), that urns similarly decorated and of nearly the same shape (except that the bottoms are more rounded and the curve of the sides less marked), are found in the dolmens of the Neolithic period in Spain, Portugal, Brittany and the Channel Islands. The food vessels are generally, but not always, found with unburnt burials, and therefore are not so old as the drinking cups, yet older than the cinerary urns and incense cups, which belong exclusively to the period when the more recent practice of cremation was superseding the older one of inhumation.

For the purpose of studying the ornamental patterns of the Bronze Age, the drinking cups and cinenary urns are the most useful. The incense cups are so small that they do not afford much scope for ornament. Some of the most elaborate are those of the type of

[1] W. Greenwell's *British Barrows*, p. 83; J. Thurnam in *Archæologia*, vol. xliii, p 378.

[2] W. Greenwell's *British Barrows*, p. 94; J. Thurnam in *Archæologia*, vol. xliii, p. 389.

the one from Aldbourne,[1] Wilts, now in the British Museum. The food vessels, again, rely for their decorative effect rather on mouldings, corrugations, knobbed projections, sinkings and piercings, than on the contrast of different geometrical patterns on an evenly-undulating surface.

The variations in the practical application of the chevron patterns, which have been described at the beginning of this paper, to the decoration of the sepulchral pottery of the Bronze Age, are produced in the following ways:—

(1) By placing the chevrons (*a*) horizontally, or (*b*) vertically.
(2) By making the chevrons of different sizes.
(3) By altering the angle of the chevrons, *i.e.*, making the points more acute or more obtuse.
(4) By shading some parts of the pattern whilst other parts are left plain.
(5) By using different methods of shading, such as plain hatching, cross-hatching, dotting, &c.
(6) By combining the chevrons with horizontal and vertical lines.
(7) By arranging the patterns in horizontal bands of different widths.

We will now attempt to classify the various modifications of the chevron and its derivatives which occur upon the sepulchral pottery of the Bronze Age in Britain, arranging the patterns as nearly as possible in the order of their development, and giving examples of each.

*The Imperfect Chevron.*—The most primitive kind of chevron ornament consists of rows of short diagonal lines, which point towards each other, although they do not actually meet.

*Examples.*

Cinerary urn from Rhinderston, Pembrokeshire (*Arch. Camb.*, 5th Ser., vol. xv, p. 195).

[1] *Archæologia*, vol. lii, p. 53.

Cinerary urn from Nantglyn, Denbighshire (*Arch. Camb.*, 3rd Ser., vol. xiv, p. 246).
Cinerary urn from Penmaenmawr, Carnarvonshire (*Arch. Camb.*, 5th Ser., vol. viii, p. 33).

*Single Border of Line-Chevrons placed horizontally.*—When the chevron pattern is used thus, the chevrons are of large size, generally forming a border round the top of the urn.

*Examples.*

Cinerary urn from Craigenhollie (*Proc. Soc. Ant. Scot.*).
Cinerary urn from Kirkpark (*Proc. Soc. Ant. Scot.*, vol. xxviii, p. 74).

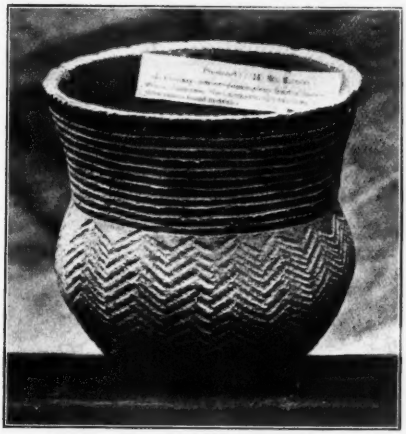
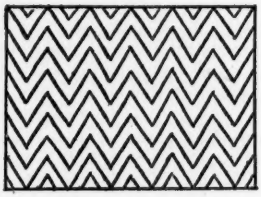


Fig. 30.—Bronze Age Urn from Aberbechan, near Newtown, Montgomeryshire.

Incense cup from Goodmanham, Yorkshire (W. Greenwell's *British Barrows*, No. 89, p. 75).
Etton (*British Barrows*, No. 76, p. 282).
Incense cup from North Newbold, Yorkshire (*Proc. Soc. Ant. Lond.*, 2nd Ser., vol. vii, p. 324).

*Surface Pattern and Broad Bands of Line-Chevrons placed horizontally.*—I have not come across an instance where the entire surface of the urn is decorated

thus, but it is not unusual to find bands of line-chevrons placed horizontally, occupying from one-third to one-half the height of the urn.



*Examples.*

Drinking cup from Aberbechan Hall, near Newtown, Montgomeryshire (*Montgom. Coll.*, vol. iii, p. 426, and *Archæologia*, vol. xliii, p. 394).

Drinking cup from Cawdor Castle, Nairnshire (British Museum).

Drinking cup from Buckie, Banffshire (*Reliquary* for 1895, p. 230).

Drinking cup from Rudstone, Yorkshire (W. Greenwell's *British Barrows*, No. 62, p. 95).

Cinerary urns from Gunwalloe, Cornwall (*Jour. R. Inst. Cornwall*, vol. xiii, p. 438).

*Single Border of Line-Chevrons placed vertically.*—This occurs very frequently in combination with other patterns, but hardly ever by itself.

*Examples.*

Cooking pot from Raddick Hill, near Princetown, Dartmoor (*Reliquary* for 1896, p. 226).

Drinking cup from Canterbury, Kent (*Proc. Soc. Ant. Lond.*, 2nd Ser., vol. xviii, p. 279).

Incense cup from Skelton, Yorkshire (British Museum).

Drinking cup from Rudstone, Yorkshire (*British Barrows*, No. 66, p. 254).

Sepulchral urn from Cae Mickney, Anglesey (*Arch. Camb.*, 4th Ser., vol. xiii, p. 216).

*Surface Pattern and Broad Bands of Line-Chevrons placed Vertically.*—Occasionally the whole of the exterior surface of the urn is covered in this way, but it is more common to find only a broad band round the top.

FIG. 31. BRONZE AGE URN FROM CAWDOR CASTLE, NAIRNSHIRE.

(Height, 6½ ins.)

*Examples.*

Incense cup from Porth Davarch, Anglesey (*Arch. Camb.*, 3rd Ser., vol. xiv, p. 217).

Food vessel from Lunanhead, Forfarshire (J. Anderson's *Scotland in Pagan Times; Bronze and Stone Ages*, p. 54).

Food vessel from Monikie, Forfarshire (*Ibid*, p. 66).

Food vessel from Cong, co. Galway (Sir W. Wilde's *Lough Corrib*, p. 225).

Cinerary urn from Cairngrieff, Lanarkshire (British Museum).

Food vessel from Stanlake, Oxfordshire (British Museum).

Cinerary urn from Storrington, Sussex (*Gentleman's Magazine* for 1830, Pt. II, p. 18).

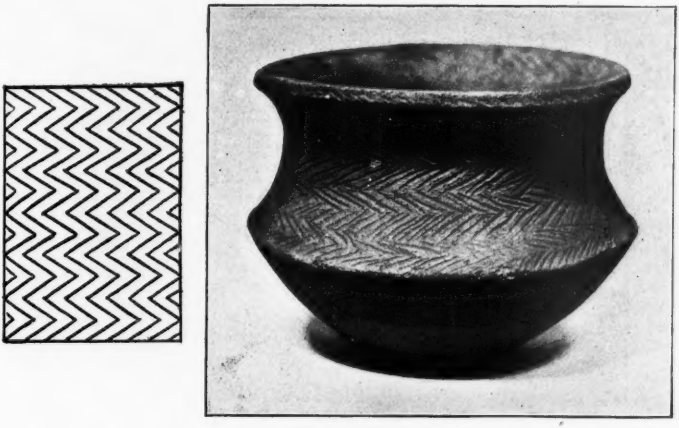


Fig. 32.—Bronze Age Urn from Porth Davarch, Anglesey. Height, 3¼ ins.

Cinerary urn from Mynydd Carn Goch, Swansea, S. Wales (*Arch. Camb.*, 3rd Ser., vol. xiv, p. 253).

Cinerary urn from Nantsallan Down, Cornwall (*Jour. R. Inst. Cornwall*, vol. x, p. 196).

Cinerary urn from Lake, Wilts (British Museum).

Cinerary urn from Tregaseal, Cornwall (Lukis, Pl. 18).

Drinking cup from River Thames at Kew (British Museum).

Drinking cup with handle from Appleford, Berks (British Museum).

Cinerary urn from Goodmanham, Yorkshire (*British Barrows*, No. 84, p. 74)

Incense cup from Ganton, Yorkshire (*Ibid.*, No. 21, p. 90).

Cinerary urn from Sherburn, Yorkshire (*Ibid.*, No. 12, p. 151).

Food vessel from Hutton Buscel, Yorkshire (*Ibid.*, No. 146, p. 363).

*Line-Chevrons arranged in Narrow Horizontal Bands.*—This is a very common treatment for the decoration of drinking cups, and more rarely occurs on cinerary urns. The variations in the ornament are

Fig. 33.—Finely Ornamented Sepulchral Urn from Normanton Barrow 156, Wilts. Height, 8½ ins.
Scale, ½ linear.

made by placing the chevrons in some of the rows vertical and in others horizontal; by leaving plain bands at intervals, by doubling or trebling the horizontal lines between the bands, and by filling in other

FIG. 34. BRONZE AGE URN FROM COLWINSTON, GLAMORGANSHIRE.

(Height, 1 ft. 3 ins.)

bands with rows of short parallel vertical or diagonal lines, or with lattice-work, lozenges, etc.

*Examples.*

Drinking cup from Rudstone, Yorkshire (W. Greenwell's *British Barrows*, No. 62, p. 241).
Drinking cup from Goodmanham, Yorkshire (W. Greenwell's *British Barrows*, No. 99, p. 94).
Drinking cup from Northumberland (Dr. J. Bruce's *Catal. of Alnwick Castle Museum*, pl. 11).
Drinking cup from Leslie, Aberdeenshire (*Reliquary* for 1897, p. 49).
Drinking cup from Upton Lord Barrow No. 3, Wiltshire (W. Cunnington and E. H. Goddard's *Catal. of Stourhead Coll. at Devizes*, No. 13, p. 5.)
Cinerary urn from Normanton, Barrow No. 156, Wiltshire (*Catal. of Stourhead Coll.*, No. 280, p. 74).
Drinking cup from Roundway Hill, Wilts (*Grave Mounds and their Contents*, p. 104).
Drinking cup from Dalry, Aryshire (*Scotland in Pagan Times*, p. 77).
Drinking cup from Parkhead, Aberdeenshire (*Ibid.* p. 79).
Drinking cup from Broomhead, Aberdeenshire (*Ibid.* pp. 75 and 76).
Drinking cup from Lesmurdie, Banffshire (*Ibid.* p. 74).

*Plain Bar-Chevron Border.*—The chevrons are generally of considerable size, and are used in a wide band round the top of the urn. Sometimes the chevrons are in relief, and in one case the triangles forming the background are pierced.

*Examples.*

Incense cup from South Ronaldsay, Orkney (*Scotland in Pagan Times*, p. 47).
Food vessel from Balcalk, Forfarshire (*Ibid.* p. 52).
Cinerary urn from Seamill, Ayrshire (*Ibid.* p. 73).
Cinerary urn from Colwinston, Glamorganshire (*Proc. Soc. Ant. Lond.*, 2nd Ser., vol. xi, p. 430).
Incense cup from Lancing, Sussex (British Museum).
Incense cup from Stanton Moor, Derbyshire (*The Antiquary*).
Incense cup from Benachie, Aberdeenshire (*Proc. Soc. Ant. Scot.*, vol. v, p. 13).
Cinerary urn from Ovingham, Northumberland, (*British Barrows*, No. 214, p. 72).
Cinerary urn from Glenballoch, Perthshire (*Scotland in Pagan Times*, p. 112).
Cinerary urn from Dalmore, Ross-shire (*Ibid.* p. 49).
Cinerary urn from Killicarney, Ireland (*Jour. R. Hist. and A. A. of Ireland*, 4th Ser., vol. v, p. 194).

*The Line-Chevron Border with Central Axis, or Palm-Leaf Pattern.*—This is comparatively rare on all classes of sepulchral urns. It is used both placed horizontally and vertically.

*Examples.*

Cinerary urn from Woodyates, Barrow No. 17, Wiltshire (*Catal. of Stourhead Coll.*, No. 253, p. 66).

Drinking cup from Culbone, Somersetshire (*Trans. of Somersetshire Arch Soc.*, vol. xlii, p. 60).

Incense cup from Bishop Burton, Yorkshire (*Archæologia*, vol. lii, p. 36).

Incense cup from Broad Down, Farway, Honiton, Devonshire (*Trans. of Devon Assoc.*, vol. ii, p. 635).

Incense cup from Mynydd Carn Goch, Swansea, S. Wales (*Arch. Camb.*, 3rd Ser., vol. xiv, p. 261).

Incense cup from Penmaenmawr, Carnarvonshire (*Arch. Camb.*, 5th Ser., vol. viii, p. 36).

Cinerary urn from Magdalen Bridge, Midlothian (*Scotland in Pagan Times*, p. 33).

Cinerary urn from Alloa, Clackmannanshire (*Ibid.* p. 63).

*Line-Chevron Border, with one set of Triangles shaded.*—The shading generally consists of parallel straight lines running in a diagonal direction, but sometimes horizontal lines or lattice-work are also used.

*Examples.*

Cinerary urn from Dumnakilly, near Omagh, Co. Tyrone (*Jour. R. Hist. and A. A. of Ireland*, 4th Ser., vol. ii, p. 509).

Food vessel from Alwinton, Northumberland (*British Barrows*, No. 202, p. 86).

Incense cup from Clifton-on-Irwell (British Museum).

Cinerary urn from Colwinston, Glamorganshire (*Arch. Camb.*, 5th Ser., vol. v, p. 85).

Cinerary urn (?) from Cairngoan, Kirkmaiden, Ayrshire (Dr. R. Munro's *Prehistoric Scotland*, p. 322).

*Acutely-pointed Line-Chevron Border, with one set of Triangles shaded, or Fern-Leaf Pattern.*—The lines of the shading are in some cases straight, and in others take a zigzag form. The ornament resembles a Van-

FIG. 35. BRONZE AGE URN FROM GOODMANHAM, YORKSHIRE.

(Height, 8¼ ins.)

dyke collar, and is extremely effective when used in two or three broad bands alternating with narrow bands.

*Examples.*

Drinking cup from Goodmanham, Yorkshire (W. Greenwell's *British Barrows*, No. 99, p. 310).

Drinking cup from Glenforsa, I. of Mull (J. Anderson's *Scotland in Pagan Times, Ages of Stone and Bronze*, p. 14).

Drinking cup from Crawford, Lanark (*Scotland in Pagan Times*, p. 58).

Fig. 36.—Bronze Age Urn from Lugnagroah, co. Wicklow. Scale, ½ linear.

Drinking cup from Freefield, Aberdeenshire (*Ibid.*, p. 78).

Drinking cup from Ganton, Northumberland (*British Barrows*, No. 21, p. 96).

*Line-Chevron Border, with both sets of Triangles shaded, but in Opposite Directions.*—This is an extremely common pattern round the top of urns. It appears to have been suggested by lashing, bandaging, grass-matting, or some other textile process.

*Examples.*

Cinerary urn from Menai Bridge, Anglesey (*Arch. Camb.*, 3rd Ser., vol. xiv, p. 244).

Cinerary urn from Bleasdale, Lancashire (*Reliquary* for 1900, p. 258).

Cinerary urn from Pickering, Yorkshire (E. Howarth's *Catal. of Bateman Coll. at Sheffield*, p. 134).

Cinerary urn from Cold Kirby (W. Greenwell's *British Barrows*, No. 128, p. 338).

Cinerary urn from Kirkpark, near Musselburgh, Midlothian (*Proc. Soc. Ant. Scot.*, vol. xxviii, p. 76).

Fig. 37.—Bronze Age Urn from County Wicklow. Scale, ½ linear.

Cinerary urn from Harlyn Bay, Cornwall (*Jour. R. Inst. Cornwall*, vol. x, p. 200).

Cinerary urn from Bolsterstone, Yorkshire (*Reliquary* for 1899, p. 147).

Cinerary urn from Luguagroah, co. Wicklow (Sir W. Wilde's *Catal. of MS., R. I. A.*, p. 177).

Cinerary urn from Tykillen, co. Wexford (*Proc. R. I. A.*, 3rd Ser., vol. v, Pl. 15).

Cinerary urn from Greenhills, Tallaght, co. Dublin (*Proc. R. I. A.*, 3rd Ser., vol. v, Pl. 11).

Cinerary urn from Childrey, Berkshire (*Archæologia*, vol. lii, p. 65).

Cinerary urn from Magdalen Bridge, Midlothian (*Scotland in Pagan Times*, p. 35).

Cinerary urn from Quarryford, East Lothian (*Ibid.*, p. 72).

Round-bottomed urn from Unstan, Orkney (*Scotland in Pagan Times*, p. 298).
Incense cup from Fylingdales, Yorkshire (*Archæologia*, vol. lii, p. 42).
Incense cup from Benachie, Aberdeenshire (*Scotland in Pagan Times*, p. 47).
Incense cup from Whitby, Yorkshire (British Museum).
Incense cup from Beedon, Berkshire (British Museum).
Incense cup from Mynydd Carn Goch, near Swansea, S. Wales (*Arch. Camb.*, 3rd Ser., vol. xiv, p. 261).

Fig. 38.—Bronze Age Urn from Ganton, Yorkshire. Scale, ½ linear.

Food vessel from Darwen, Derbyshire (*Grave-Mounds and their Contents*, p. 86).
Food vessel from Hitter Hill, Derbyshire (*Ibid.*, p. 99).
Food vessel from Tenby (*Arch. Camb.*, 3rd Ser., vol. xiv, p. 266).
Food vessel from Darley Dale, Derbyshire (*Ibid.*, p. 92).

*Border of Bar-Chevrons placed horizontally, with one set of Triangles shaded.*—The shading generally consists of horizontal lines.

*Examples.*

Cinerary urn from Bawdsey, Suffolk (British Museum).
Drinking cup from Kilmartin, Argyllshire (British Museum).

*Border of Bar-Chevrons placed horizontally, with both sets of Triangles shaded.*—This makes the bar-chevrons appear light on a dark background.

*Examples.*

Drinking cup from Ganton, Northumberland (W. Greenwell's *British Barrows*, No. 21, p. 162).
Drinking cup from St. Fagan's, Glamorganshire (*Arch. Camb.*, 6th Ser., vol. ii, p. 30).
Drinking cup from Goodmanham (*British Barrows*, No. 116, p. 101).

*Border of Bar-Chevrons placed horizontally, with the Chevrons shaded.*—This makes the bar-chevrons appear dark on a light background.

*Example.*

Drinking cup from Goodmanham, Yorkshire (W. Greenwell's *British Barrows*, No. 113, p. 99).

*Border of Bar-Chevrons placed vertically, with every alternate Chevron shaded.*—This pattern can only be shaded in one way.

*Examples.*

Incense cup from Aldbourne, Wiltshire (*Archæologia*, vol. lii, p. 53).
Incense cup from Beckhampton, Wiltshire (*Archæologia*, vol. 43, p. 363).
Incense cup from Camerton, Somersetshire (*Trans. Somerset Arch. Soc.*, vol. viii, p. 44).

*Bar-Chevron Surface Pattern, with top points of Chevrons in one row vertically, under top points of*

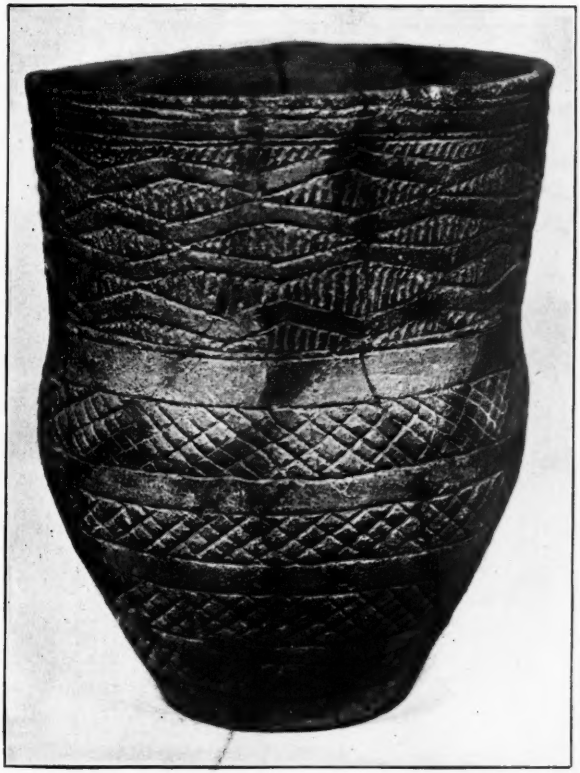


FIG. 39. BRONZE AGE URN FROM LAKENHEATH, SUFFOLK.

(Height, 7½ ins.)

FIG. 40. BRONZE AGE URN FROM FINGHELDEAN.

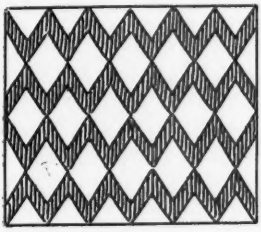
(Height, 7¼ ins.)

*Chevrons in the next row.* — This is comparatively rare.

*Example.*

Fimber, Yorkshire (Ll. Jewitt's *Grave-Mounds and their Contents*, p. 102).

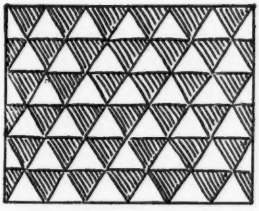
*Bar-Chevron Surface Pattern, with top points of Chevrons in one row vertically, under bottom points of Chevrons in the next row.*



*Examples.*

Lakenheath, Suffolk.
Fingheldean, Wiltshire (*Archæologia*, vol. xlii, p. 197).

*Triangle Border Pattern.*—This is the same as the line-chevron border, with one set of the triangles shaded.

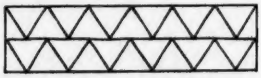


*Triangle Surface Pattern, with the points of all the Triangles meeting, shaded like chequer-work.* — This occurs more often on jet necklaces and sculptured stones than on pottery.

*Example.*

Cinerary urn from Drumnakilly, near Omagh, co. Tyrone (*Jour. R. Hist. and A. A. of Ireland*, 4th Ser., vol. ii, p. 508).

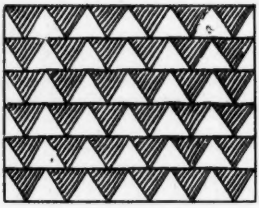
*Double Border composed of Triangles, with the points of the Triangles in one row, falling in the centres of the bases of the Triangles in the row above.*—This is an extremely rare pattern.



*Example.*

Incense cup from Danby Moor, Yorkshire (British Museum).

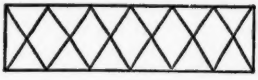
*Surface Pattern, composed of Triangles, arranged as in the preceding, and shaded as in chequer-work.*—This is also an extremely rare pattern in pottery, and it is more often used for the decoration of jet necklaces and bronze celts.



*Example.*

Incense cup from Beckhampton, Wiltshire (*British Barrows*, p. 76).

*Plain Line-Lozenge Border.*—This consists of a single horizontal row of lozenges, made with incised lines and not shaded. It occurs generally round the tops of urns.



*Examples.*

Cinerary urn from Tuack, Aberdeenshire (*Scotland in Pagan Times*, p. 103).

Cinerary urn from Cleatham, Lincolnshire (*Grave-Mounds and their Contents*, p. 93).

Cinerary urn from Penmaenmawr, Carnarvonshire (*Arch. Camb.*, 5th Ser., vol. viii, p. 33).

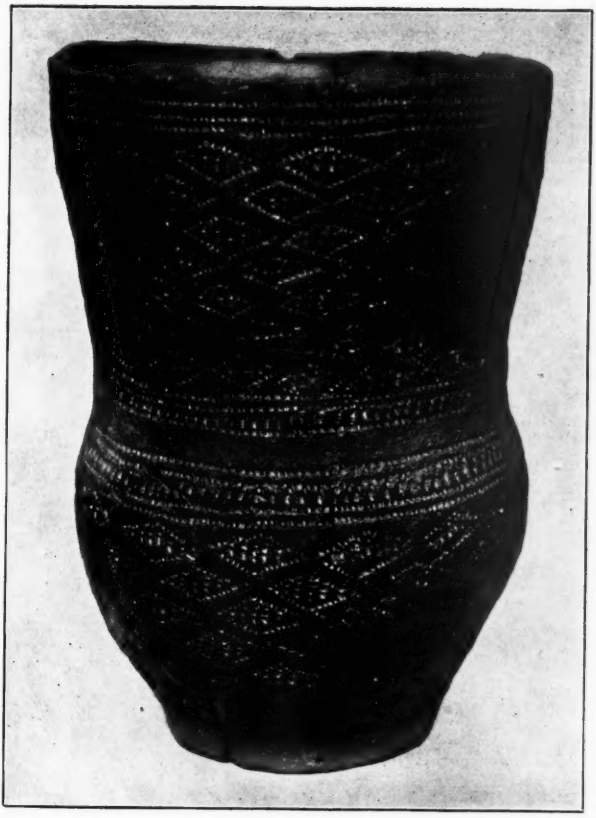
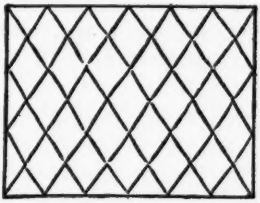


FIG. 41. BRONZE AGE URN FROM WILSFORD, WILTSHIRE.

(Height, 8 ins.)

*Plain Line-Lattice Surface Pattern.*—This is an extension of the preceding, so as to cover a wide band round the top of the urn, or its whole surface, with a network of lozenges.



*Examples.*

Cinerary urn from Tomen y Mur, Carnarvonshire (*Arch. Camb.*, 3rd Ser., vol. xiv, p. 240).

Cinerary urn from Lake, Wiltshire.

Cinerary urn from Drumnakilly, Co. Tyrone (*Jour. R.Hist. and A.A. of Ireland*, 4th Ser., vol. ii, pp. 508 and 511).

Cinerary urn from Drumnakilly, near Omagh, Co. Tyrone (*Ibid.*, 4th Ser., vol. ii, p. 511).

Cinerary urn from Monsal Dale, Derbyshire (*Grave-Mounds and their Contents*, p. 87).

Cinerary urn from Ferry Friston, Yorkshire (*British Barrows*, No. 161, p. 71).

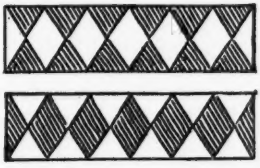
Cinerary urn from Stobshiel, Haddingtonshire (*Scotland in Pagan Times*, p. 20).

Cinerary urn from Magdalen Bridge, Midlothian (*Ibid.*, p. 30).

Cinerary urn from Balbirnie, Fifeshire (*Ibid.*, p. 71).

Incense cup from Hill of Culsh, Aberdeenshire (*Proc. Soc. Ant. Scot.*, vol. xxxv, p. 262).

*Line-Lozenge Border, shaded.*—This consists of a horizontal row of lozenges, shaded either so as to be light on a dark background, or *vice versâ*.



*Examples.*

Cinerary urn from Magdalen Bridge, Musselburgh, Midlothian (J. Anderson's *Scotland in Pagan Times*, p. 31).

Cinerary urn from Shanwell, Kinross-shire (*Scotland in Pagan Times*, p. 37).

Food vessel from Killicarney, Co. Cavan (*Jour. R.Hist. and A. A. of Ireland*, 4th Ser., vol. v, p. 191).

Drinking cup from Winterbourne Stoke, Wiltshire (British Museum).

Drinking cup from Goodmanham, Yorkshire (*British Barrows*, No. 116, p. 101).

*Bar Lozenge Border shaded.*—This is the same as the plain lozenge border, except that the lozenges are formed by intersecting bars instead of intersecting lines. Sometimes the lozenges on the background are shaded.

*Examples.*

Drinking cup from Pound Down, N. Wilts (Wilts *Arch. Mag.*, vol. vi, 1860, p. 321).

Drinking cup from Hay Top, Derbyshire (Ll. Jewitt's *Grave-Mounds and their Contents*, p. 102).

Drinking cup from Beckhampton, Barrow No. 4, Wilts (*Catal. of Stourhead Coll. at Devizes*, p. 78).

Drinking cup from Bee Low, Derbyshire (*Catal. of Bateman Coll. at Sheffield*, p. 147).

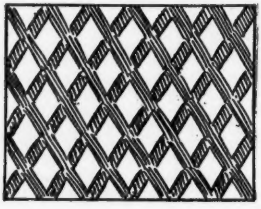
Cinerary urn from Magdalen Bridge, Musselburgh, Midlothian (*Scotland in Pagan Times*, p. 31).

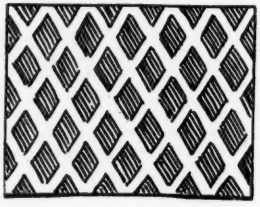
Drinking cup from Folkton, Yorkshire (*Archæologia*, vol. lii, p. 16).

Incense cup from Llandyssilio, Pembrokeshire (*Arch. Camb.*, 3rd Ser., vol. xiv, p. 257).

Incense cup from Bryn Seiont, Carnarvonshire (*Ibid.*, 3rd Ser., vol. xiv, p. 256).

*Bar-Lattice Surface Pattern shaded.*—This is the same as the plain lattice surface pattern, but with the lattice-work formed of bars instead of lines. Sometimes the bars are shaded, and sometimes the lozenges.





*Examples.*

Drinking cup from Wilsford, Wilts. (*Archæologia*, vol. xlii, p. 196).

Drinking cup from Winterbourne Monkton, Wilts. (J. Thurnam's *Crania Britannica*, p. 158; and Wilts. *Arch. Mag.*, vol. i, 1854, p. 303).

*The Saltire Border.*—This may be made either with incised lines or with bars, and be shaded or left plain.

Fig. 42.—Bronze Age Urn from East Kennet, Wilts. Height, 7½ ins.

It is not a particularly common form of ornament on pottery.

*Examples.*

Drinking cup from East Kennet, Wilts. (*Archæologia*, vol. xliii, p. 392).

Drinking cup from Green Low, Alsop Moor, Derbyshire (*Catal. of Bateman Coll. at Sheffield*, p. 139).

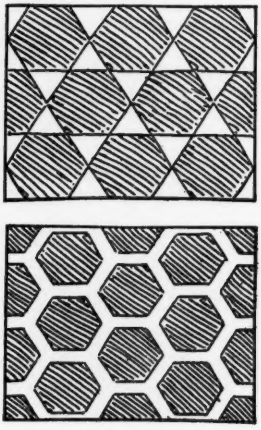
Drinking cup from Durrington, Barrow No. 93, Wilts. (*Catal of Stourhead Coll. at Devizes*, p. 12).

Drinking cup from Porth Dafarch, Anglesey (*Arch. Camb.*, 3rd Ser., vol. xiv, p. 238).

Drinking cup from Grindlow, Derbyshire (Ll. Jewitt's *Grave-Mounds and their Contents*, p. 102).

*Hexagon Border.*—A very beautiful border pattern may be formed of hexagons and four-pointed stars, the hexagons being shaded.

*Hexagon Surface Pattern.*—This may consist either entirely of hexagons, or of hexagons with bars between them.



*Examples.*

Drinking cup from Folkton, Yorkshire (*Archæologia*, vol. lii, p. 11).

Drinking cup from March, Cambridgeshire (*Archæologia*, vol. xliii, p. 397).

Drinking cup from Pickering, Yorkshire (Bateman's *Ten Years' Diggings*, p. 204).

Drinking cup from Rhosheirio, Anglesey (*Arch. Camb.*, 3rd Ser., vol. xiv, p. 271).

FIG. 43. BRONZE AGE URN FROM DURRINGTON BARROW NO. 93, WILTS.

(Height, 7½ ins.)

FIG. 44. BRONZE AGE URN.

All the patterns which have been described are founded on the Chevron, and consequently are formed principally of diagonal lines; but there are some designs to be found on the pottery of the Bronze Age, where the lines run only horizontally and vertically, as in the following.

Fig. 45.—Bronze Age Urn from Folkton, Yorkshire. Scale, ½ linear.

*Chequer-work Border.*—This consists of rectangular spaces, alternately shaded with horizontal and vertical parallel lines.

*Examples.*

Cinerary urn from Oldbury, near Atherstone, Northamptonshire (M. H. Bloxham, in Paper read before Rugby School Nat. Hist. Soc., November 22nd, 1884).

Cinerary urn from Kirkpark, near Musselburgh, Midlothian (*Proc. Soc. Ant. Scot.*, vol. xxviii, p. 77).

Cinerary urn from Cransley, Northamptonshire (British Museum).

Cinerary urn from Penmaenmawr, Carnarvonshire (*Arch. Camb.*, 5th Ser., vol. viii, p. 33).

Cinerary urn from Hatton Buscel, Yorkshire (W. Greenwell's *British Barrows*, No. 157, p. 368).

Drinking cup from Goodmanham, Yorkshire (*Ibid.*, No. 116, p. 131).

Cinerary urn from Kilburn (*Ibid.*, No. 128, p. 67).

Cinerary urn from Ovingham, Northumberland (*Ibid.*, No. 213, p. 70).

Food vessel from Mackrakens, co. Tyrone (*Jour. R. Hist. and A. A. of Ireland*, 4th Ser., vol. i, p. 29).

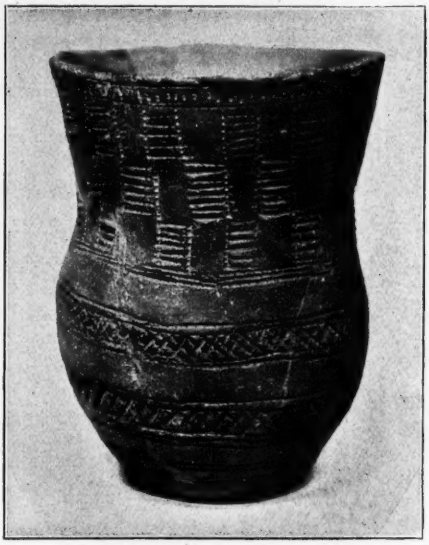


Fig. 46.—Bronze Age Urn from Workington, Suffolk. Height, 5 ins.

Food vessel from Forth Mountain, co. Wexford.

Food vessel from Alnwick, Northumberland (British Museum).

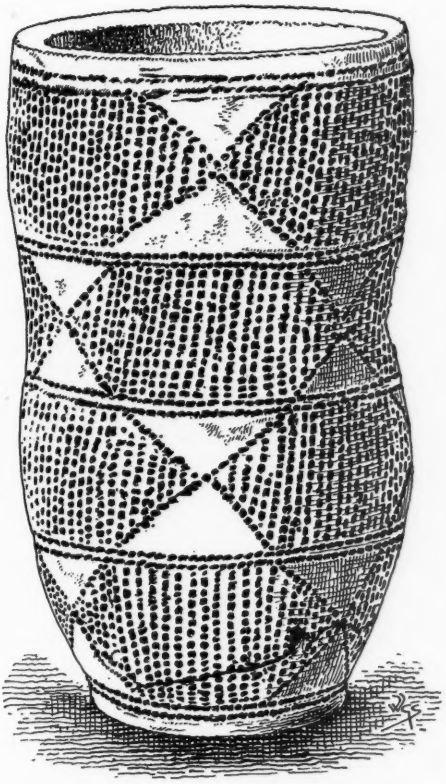
Cinerary urn from Tregaseal, Cornwall (W. C. Borlase's *Nenia Cornubia*, p. 242).

Incense cup from Kirkpark, near Musselburgh, Midlothian (*Proc. Soc. Ant. Scot.*, vol. xxviii, p. 73).

Cinerary urn from Stenton, East Lothian (*Scotland in Pagan Times*, p. 92).

Cinerary urn from Ballidon, Moor (*Grave-Mounds and their Contents*, p. 88).

Food vessel from Mackrakens, co. Tyrone (*Jour. R. H. and A. A. of Ireland*, 4th Ser., vol. i, p. 29).



Ancient British Urn, from Rhosbeirio, Anglesey

*(Scale, ½ linear).*

*Chequer-work Surface Pattern.*[1]—This is like a chess-board, with alternate squares shaded.

*Examples.*

Drinking cup from Workington, Suffolk.
Drinking cup from Rudstone, Yorkshire (W. Greenwell's *British Barrows*, No. 66, p. 254).

## METAL-WORK.

The classes of metal objects which exhibit Bronze-Age Chevron ornament are as follows :—

Gold tumulæ.
Bronze axe-heads.
Bronze razors.
Bronze dagger-blades.
Bronze spear-heads.

The lunulæ are thin plates of hammered gold, shaped like a crescent, ornamented with incised lines along both margins, and on the two horns of the crescent. The central portion of the crescent presents a plain surface of brightly-burnished gold, and the ornament, which is concentrated on the two horns, is arranged in transverse bands, the patterns on each of the horns being similar. These lunulæ, or *minns*—as they are called in Irish—were probably used as head ornaments or diadems.[2]

When Sir W. Wilde compiled his *Catalogue of the Antiquities of Gold in the Museum of the Royal Irish Academy*, in 1862, there were fifteen specimens in that collection, and seventeen more have been added since,[3] making a total of thirty-two. Besides these there are eleven in the British Museum, four in the National Museum of Antiquities of Scotland in Edinburgh, one in the Belfast Museum, and at least three in private collections. Nine more are recorded to have been

[1] This pattern occurs on a vessel from a Stone-Age burial at Ashogen, in Sweden (H. Hildebrand's *Scandinavian Antiquities*, p. 7.
[2] See Sir W. Wilde's *Catalogue*, p. 12.
[3] "On Gold Lunulæ," by Dr. W. Frazer, in the *Jour. R. Soc. Ant., Ireland*, 5th Ser., vol. vii, p. 53.

found in different places, but have subsequently been destroyed or lost sight of. Nearly the whole of the fifty or so known specimens are from Ireland, the only exceptions being three from Scotland, one from North Wales, two from Cornwall, two from France, and one from Denmark.

Fig. 47.—Ornamental Bronze Axe-Head in the Museum of the Royal Irish Academy.

The decoration of the horns of the gold lunulæ is very much alike in all cases, and usually consists of four or five narrow transverse bands, every other one of which is shaded with fine cross-thatched lines, alternating with wider bands, either having a chevron border along each margin, or a row of lozenges in the middle. Examples of the first method of treating the

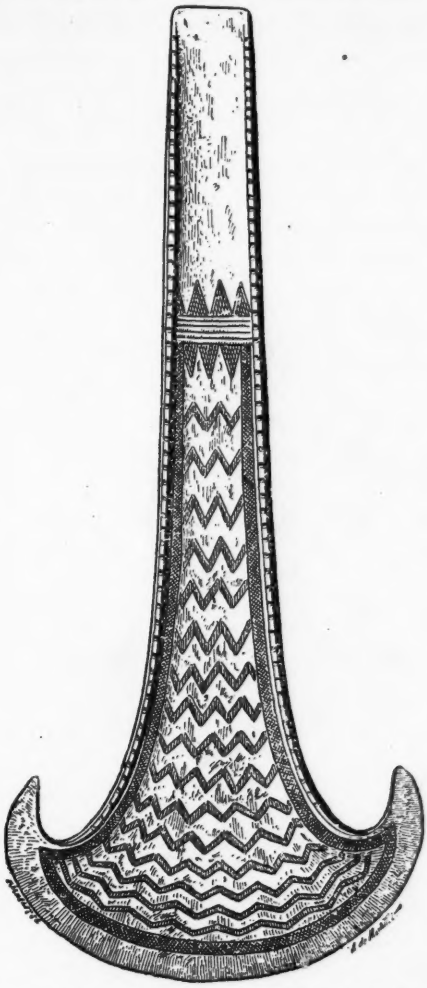


Fig. 48.—Ornamental Bronze Axe-Head at Sorèze (Tarn), probably from Ireland.

wider transverse bands may be seen on the lunula from the Lanfine Collection[1] in the Edinburgh Museum,

[1] *Proc. Soc. Ant. Scot.*, vol. xxxii, p. 240.

and on the one from the Dawson Collection[1] in the Dublin Museum. Examples of the lozenge pattern on transverse borders occur on the lunula from Killarney,[2] in the Dublin Museum, and in the one from Padstow,[3] Cornwall.

Rectilinear ornament founded on the chevron occurs only on the earlier class of slightly-flanged, wedge-shaped, bronze axe-heads, but never on the later winged,

Fig. 49.—Ornamental Bronze Axe-Head in the Museum of the Royal Irish Academy.

looped, and socketed celts. As in the case of the gold lunulæ, almost all the best specimens of highly ornamented bronze axe-heads have been found in Ireland, so that most probably those which have turned up in England and France were of Irish manufacture. The following list shows the patterns which occur on bronze axe-heads, with the localities where the speci-

[1] Sir W. Wilde's *Catalogue*, p. 14.
[2] *Ibid.*, p. 11.
[3] *Jour. R. Inst. Cornwall*, vol. ii, p. 142.

mens were found, and references to the works where they are described.

| | |
|---|---|
| Plain Chevron Border, with one set of triangles shaded. | Lewes, Sussex (Sir J. Evans' *Ancient Bronze Implements*, p. 53, Fig. 4). |
| Plain Chevron Border, with both sets of triangles shaded. | Dorsetshire (British Museum, *Ibid.*, p. 53). |
| Bar-Chevron Surface Pattern ... | Ireland (Mus. R.I.A.). |
| Triangular Surface Pattern ... | Perth (*Evans*, p. 60, Fig. 24). |
| Ditto ditto ... | Ireland (Mus. R.I.A.). |
| Lozenge Border, shaded ... | Ireland (*Evans*, p. 66, Fig. 35). |
| Ditto ditto ... | Mareuil-sur-Ourcq-Oise (*Dictionnaire Archéologique de la Gaule*). |
| Ditto ditto ... | Sorèze (Tarn), probably from Ireland (E. Cartailhac's *Les Ages Préhistoriques de l'Espagne et du Portugal*, p. 99). |
| Saltire ... ... ... | Ireland (*Evans*, p. 66, Fig. 38). |
| Lozenge Surface Pattern ... ... | Westmoreland (British Museum). |

Bronze axe-heads with chevron and lozenge patterns upon them have been found in Denmark[1] and Sweden, but the axe-heads are hafted in an entirely different way from the Irish examples, having a transverse perforation for the insertion of the handle, as in the modern iron axe.

Bronze razors with ornament are extremely rare. Three specimens have been found in Scotland,[2] namely, at Rogart, Sutherlandshire, at Shanwell, Kinross-shire, and at Musselburgh, Midlothian. They are all ornamented with lozenge patterns, shaded with cross-hatching.

Bronze dagger-blades and spear-heads with chevron patterns are hardly ever found outside Ireland. The

[1] A. P. Madsen's *Alfbildninger af Danske Oldsager og Mindesmaerker.*

[2] Dr. J. Anderson's *Scotland in Pagan Times, Ages of Stone and Bronze*, pp. 24, 29, and 38.

patterns on these classes of objects consist almost exclusively of shaded chevrons and lozenges.

### Objects of Stone, Amber, and Jet.

Stone, amber, and jet were used in the Bronze Age for the manufacture of certain objects which were

Fig. 50.—Slate Amulet from Casa da Moura, Césareda, Portugal.

deposited as grave-goods in the round barrows. Amongst the most curious objects of stone are three carved chalk cylinders, shaped like a drum or a cheese, found in a barrow at Folkton,[1] Yorkshire, and now in the British Museum. Their dimensions are :—

[1] See Mr. Greenwell's paper on "Recent Researches in Barrows in Yorkshire, Wiltshire, &c.," in the *Archæologia*, vol. lii, p. 16.

No. 1.—4⅝ ins. high by 5¾ ins. in diameter.
No. 2.—4½ ins. high by 5 ins. in diameter.
No. 3.—3⅜ ins. high by 4 ins. in diameter.

The tops of the drums are ornamented in each case with concentric circles, and the sides with chevron and lozenge patterns, shaded with cross-hatching of delicate lines. In addition to the ornament, they also have highly conventionalised owl-like human faces, re-

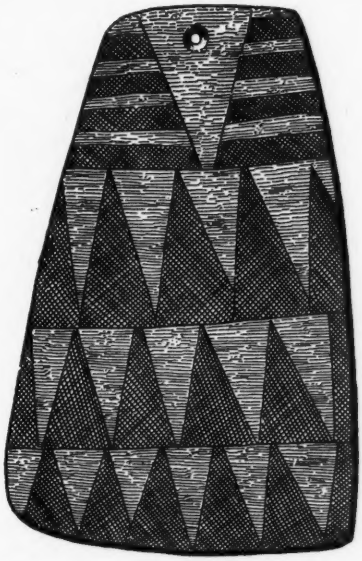


Fig. 51.—Slate Amulet from Casa da Moura.

sembling those on the idols from Troy, Mykenæ,[1] and the remarkable figures in the artificial caves found in France.[2] Perhaps the most characteristic geometrical pattern on the Folkton chalk-drums is a rectangle divided by cross and diagonal lines into eight triangles, alternately plain and cross-hatched. The design is not altogether unlike that of the Union Jack.

[1] Schliemann's *Troy*, p. 307.
[2] E. Cartailhac's *La France Prèhistorique*, p. 242.

The stone wrist-guards and small perforated stone axe-hammers which so frequently accompany Bronze-Age burials, are hardly ever ornamented, and may therefore be dismissed from our consideration.[1] Before leaving this branch of the subject, however, it may be well to mention the interesting slate tablets or amulets, with patterns formed of chevrons and triangles, found in the cave of Casa da Moura,[2] at the foot of Monte Junto, Portugal.

Fig. 52.—Slate Amulet from Casa da Moura.

The objects of jet which afford instances of Bronze-Age ornament, include necklaces, dress-fasteners, and a unique cup, referred to subsequently. The jet necklaces are generally composed partly of flat plates, with four or five holes in them for the threads to pass through,

[1] A perforated stone hammer found at Maesmore, near Corwen, North Wales, and now in the National Museum of Antiquities of Scotland, at Edinburgh, is highly ornamented with a line-lattice pattern.

[2] E. Cartailhac's *Les Ages Préhistoriques de l'Espagne et du Portugal*, p. 97.

and partly of bugle-shaped beads. The plates at each end are triangular in shape, and the rest four-sided, and wider at one end than the other. The plates and beads come alternately, and form a sort of crescent, often with a pendant in the middle. The plates are generally ornamented with chevron and lozenge patterns, shaded with dots instead of cross-hatching. The most elaborately ornamented examples have been found in Scotland. The following

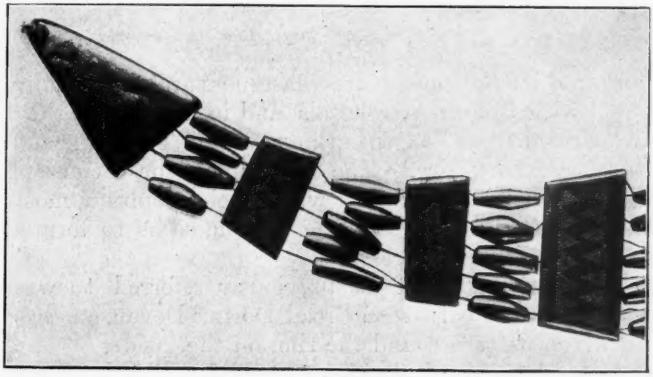


Fig. 53.—Jet Necklace from Melfort, Argyllshire.

list gives some of the best, with patterns, localities, and references :—

| | |
|---|---|
| Line-Chevron Border, with one set of triangles shaded. | Torish, Sutherlandshire (*Scotland in Pagan Times*, p. 56). |
| Bar-Chevron Border, with triangles shaded. | Melfort, Argyllshire (*Proc. Soc. Ant. Scot.*, vol. xix, p. 134). |
| Ditto ditto ... | Windle Nook (*Catal. of Sheffield Museum*, p. 59). |
| Border of Bar-Chevrons placed vertically, and shaded alternately black and white. | Assynt, Ross-shire (D. Wilson's *Prehistoric Annals of Scotland*, vol. i, p. 435). |
| Triangular Surface Pattern, shaded as in chequer-work. | Melfort, Argyllshire (see above). |

| | | | |
|---|---|---|---|
| Line-Lattice Border, shaded. | | .. | Balcalk, Forfarshire (*Scotland in Pagan Times*, p. 43), and *Proc. Soc. Ant. Scot.*, vol. xxv, p. 65). |
| Ditto | ditto | ... | Melfort, Argyllshire (see above). |
| Ditto | ditto | ... | Mount Stuart House, Bute (R. Munro's *Prehistoric Scotland*, p. 212). |
| Line-Lattice Surface Pattern, shaded as in chequer-work. | | | Arbor Low, Derbyshire (*Grave-Mounds and their Contents*, p. 177). |
| Bar-Lattice Surface Pattern | | ... | Assynt, Ross-shire (see above). |
| Ditto | ditto | ... | Helperthorpe, Yorkshire (*British Barrows*, p. 54). |
| Saltire, shaded | ... | ... | Assynt, Ross-shire (see above). |

Round jet buttons or dress-fasteners are occasionally found with Bronze-Age burials, and in a few cases they are ornamented as in those from Thuring, and Rudstone, Yorkshire.[1] The pattern on these consists of four shaded chevrons, with their points almost meeting in the centre of the button, so as to form a design resembling a cross.

The unique cup of jet previously referred to was discovered in a barrow on Broad Down,[2] Devon, and has a chevron pattern round the rim, on the inside.

An amber cup, similar to that from Broad Down, was found at Hove, Sussex, and is now in the Brighton Museum, but it is unornamented. A splendid amber necklace from Lake, Wilts., made on the same pattern as those of jet, is to be seen in the British Museum, but it also is unornamented.

## Sculptured Rocks and Stones.

There are numerous examples in Great Britain of rocks and boulders sculptured with cups and rings, as

[1] W. Greenwell's *British Barrows*, Nos. 60 and 68, pp. 227 and 264.

[2] See "Memoir of the Excavation of three tumuli on Broad Down, Farway, near Honiton, Devon," by the Rev. R. Kirwan, in the *Report of the International Congress of Prehistoric Archæology, held at Norwich in* 1868.

at Ilkley,[1] Yorkshire, Wooler,[2] Northumberland, and Lochgilphead,[3] Argyllshire, but on none of these do rectilinear figures occur. The corner and side stones of sepulchral cists of the Bronze Age are sometimes carved with rectilinear figures, as at Cairnbân,[4] Argyllshire, where there is a lozenge, and at Carnwath,[5] Lanarkshire, where there are triangular designs.

Much the most perfect series of sculptures in the Bronze Age style are to be seen at the great chambered tumulus at Newgrange. This monument has been so exhaustively described in Mr. George Coffey's admirable monograph on the subject, in the *Transactions of the Royal Irish Academy* (vol. xxx, 1892, p. 1), that all we need do here is to give a list of the various chevron patterns which occur there, with their position, and a reference to the figures in his paper.

*List of Chevron Patterns at Newgrange.*

| | | | |
|---|---|---|---|
| Line-Chevron Surface Pattern | | ... | Roofing slab of N.-E. recess (*Trans. R.I.A.*, vol. 30, p. 4). |
| Ditto | ditto | ... | Upright stone, No. 17, on left side of passage (*Ibid.*, Pl. 1, Fig. 1). |
| Bar-Chevron Border | ... | ... | Lintel stone at back of S.-W. recess (*Ibid.*, Fig. 5). |
| Bar-Chevron Surface Pattern | | ... | Upright stone, No. 20, on left side of passage (*Ibid.*, Fig. 36). |
| Triangular Surface Pattern | | ... | Lintel stone over opening of passage into chamber (*Ibid.*, Fig. 13). |
| Ditto | ditto | ... | Upright stone, No. 16, on S.-E. side of N.-E. recess (*Ibid.*, Fig. 15). |
| Ditto | ditto | ... | Recumbent stone at base of mound outside, on N. side (*Ibid.*, Fig. 34). |

[1] *Jour. Brit. Arch. Assoc.*, vol. xxxv, p. 15, and vol. xxxviii, p. 156.

[2] G. Tate's *Sculptured Rocks of Northumberland.*

[3] Sir James Simpson's "Sculpturings of Cups and Rings," in *Proc. Soc. Ant. Scot.*, vol. vi, Pl. 21, Appendix.

[4] *Ibid.*, Pl. 13.

[5] *Scotland in Pagan Times*, p. 88.

| | |
|---|---|
| Line-Lozenge Border, shaded ... | Lintel stone at back of S.-W. recess (*Ibid.*, Fig. 53). |
| Ditto ditto ... | S.-E. side of N.-E. recess (*Ibid.*, Fig. 14). |
| Line-Lattice Surface Pattern, shaded | Upright stone, No. 16, on S.-E. side of N.-E. recess (*Ibid.*, Fig. 15). |
| Bar-Lattice Surface Pattern ... | Recumbent stone, A, at base of mound, outside, on N.-W. side (*Ibid.*, Fig. 35). |
| Ditto ditto ... | Recumbent stone, B, at the base of mound, outside. on N. side. |
| Pattern compossed of Lozenges divided into four Triangles by diagonals, and shaded. | Upright stone, No. 16, on left side of passage (*Ibid.*, Fig. 16). |
| Bar-Saltire Border ... ... | Recumbent stone above entrance to passage outside (*Ibid.*, Fig. 32). |

## Concluding Remarks.

The foregoing Paper is, I believe, the first serious attempt that has been made to classify the rectilinear patterns of the Bronze Age in Britain, so as to show the geometrical relation they bear to each other. The designers of these patterns were no doubt entirely ignorant of the geometrical principles which underlie the construction of the ornament, and yet it is instructive to notice that almost every possible arrangement of straight lines founded on the chevron has been hit upon, by continually trying to evolve new forms of decoration by the experimental method. It has been shown that the number of elementary patterns which can be derived from the chevron is comparatively small, and limited purely by the geometrical properties of space. Nevertheless, the mathematical theory of "Permutations and Combinations" demonstrates the possibility of combining a small number of elements in a practically unlimited number of ways, so that for purposes of decoration the changes which can be rung on the chevron and its derivatives are almost inexhaustible.

The study of comparative ornament has been hitherto

so neglected by archæologists in this country, that the anxious enquirer after knowledge might search through the whole of the fifty and odd volumes of the *Archæologia*, and nearly all the *Transactions* of the various scientific societies, without being able to find any information whatever on the subject. Yet the importance of a knowledge of comparative ornament in affording the most reliable clue to the probable date and provenance of a work of art can hardly be over-estimated. It has been possible (for instance, in the present Paper) to group together a certain number of vessels, implements, objects and monuments, by showing that their decoration is identical. Now, as some of these are known to belong to the Bronze Age, the natural inference to be drawn is that all the others do also. Furthermore, it may be possible, by comparing the ornament on the group found in Britain with other groups presenting similar forms of decoration in Spain, Portugal, Denmark, Sweden and Hungary, to indicate the probable sources whence the culture of the Bronze Age was derived. This branch of the subject has been so ably dealt with by Mr. George Coffey, M.R.I.A., in his "Origins of Prehistoric Ornament in Ireland," in the *Journal of the Royal Society of Antiquaries of Ireland* (vols. iv to vii), that nothing further need be said about it here.

I have the pleasure of expressing my indebtedness for the loan of blocks to the Society of Antiquaries and the Clarendon Press, and for permission to have photographs of ancient British urns, taken in the Devizes Museum, to the Wilts. Archæological Society. The photographs of the urns in the British Museum were specially taken by Mr. H. Oldland, with the sanction of Mr. C. H. Read, F.S.A. The photographs of the urns and bronze axe-heads in the Museum of the Royal Irish Academy are from the series taken by Mr. W. G. Moore, of 11, Upper Sackville Street, Dublin.

# NOTES ON LLANDAFF PARISH.

BY G. E. HALLIDAY, ESQ., F.R.I.B.A.

DURING the last one hundred and fifty years so many changes have taken place in the neighbourhood of Whitchurch, Fairwater, Ely and Gabalva, which at one time formed part of Llandaff parish, and so many institutions and place-marks have been swept away, that now, in the beginning of the twentieth century, a short account of some of these matters may not only be of interest, but may be the means of preserving data which might otherwise be lost.

## LLANDAFF FAIR AND MARKET.

Only a year or so ago, that product of recent legislation "the parish council," gave the final blow to one of the city's most ancient institutions, by enclosing the Llandaff Green, thereby putting an end to the Llandaff Fair.

The Llandaff Fair and Market date from very ancient times. About seventy years ago, however, the Fair became a scene of such licence that it was a disgrace to the country-side. The boxing or fighting booths were notorious, and their probable sequence was the recent finding of a skeleton buried a few inches below the grass on Llandaff Green; and another in a hedge-bank near the Cathedral, also a third close to the Fairwater Road.

The first mention of Llandaff Market is chronicled in the *Liber Llandavensis*, from which it seems that to hold a market in Llandaff was one of the privileges of St. Teilo, A.D. 540.

The translation reads as follows:—

"St. Teilo and his successors for ever have right of commonage of water and herbage, field and wood, for the people of the

Church of St. Teilo, with a market and mint at Llandaff, with the approach of ships everywhere throughout the territories of St. Teilo, free from kings and all persons, except the Church of Llandaff and its Bishop."

So far as the Market is concerned, there seems to be no reason to doubt this statement, but whether a mint ever existed at Llandaff is very dubious. In fact, the authorities of the British Museum go so far as to state, that a mint is an institution unknown in Wales, except at Aberystwith during the reign of Charles I.

Coins, or more probably tokens, bearing the arms of the See, have been found at Llandaff from time to time. These, however, would probably be of comparatively recent date, and may have been minted at Bristol.

The next mention of Llandaff Market and Fair is taken from the archives of the Tower of London, viz., in a Charter granted on the 5th day of May (or March), A.D. 1206, being the seventh year of the reign of King John, to the Bishop of Llandaff, for the Llandaff Fair. The translation of this document reads :—

"The King granted Henry, Bishop of Llandaff, that he and his successors should hold one fair each year for four days on the day after Pentecost, and for three days following, and a market any day through or during Lord's day at Llandaff. Given at Bristol this 9th day of September."

Bishop Henry was Prior of Abergavenny, and died 1213.

Previous to the reign of Henry III, it was usual to hold markets on Sundays, but this custom gradually fell into disuse till the reign of Henry VI, when, in 1448, they were prohibited from being held on Whit Sunday, Trinity Sunday, and other Sundays, and on Good Friday.

Browne Willis, writing in his quaint way in 1718, says :—

"That to the great scandal of religion, there were near as many fairs held on Good Friday as on any other day."

## The Llandaff Cross.

It is a curious coincidence that the parish council, while they dealt the final blow to the fair by enclosing the green, carefully repaired the market, or preaching cross. The cross, cross-shaft and steps, are comparatively modern, but the cross-base must certainly date prior to King John's Charter.

It was from the cross on Llandaff Green that Archbishop Baldwin preached the Third Crusade. To quote Geraldus :—

"On the following morning the business of the cross being


Fig. 1.

publicly proclaimed at Llandaff, the English standing on one side and the Welsh on the other, many persons on each side taking the cross, and we remained through the night with William (William de Salso Morisco), Bishop of that place, a discreet and good man."

## The Alms-houses. (See Fig. 1.)

A few years since, the Llandaff Alms-houses were demolished. These, in the early part of the eighteenth century, were spoken of as being divided into nine compartments, which, not being endowed, were maintained by the overseers of the poor. These houses stood at the corner of Pavement Street nearest to

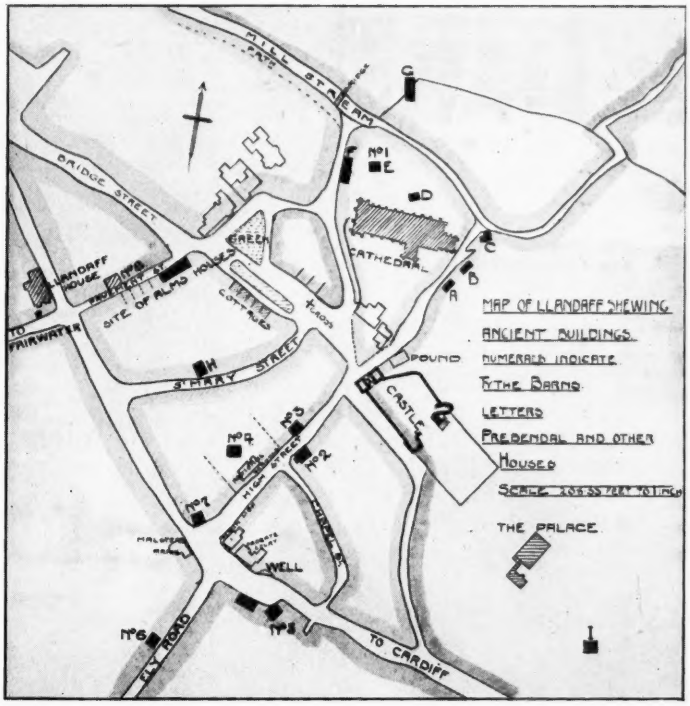

MILL STREAM
PATH
BRIDGE STREET
GREEN
CATHEDRAL
LLANDAFF HOUSE
PROPERTY OF
SITE OF ALMS HOUSES
TO FAIRWATER
ST MARY STREET
POUND
CASTLE
HIGH STREET
WELL
TO CARDIFF
THE PALACE
MAP OF LLANDAFF SHEWING
ANCIENT BUILDINGS.
NUMERALS INDICATE
TYTHE BARNS
LETTERS
PREBENDAL AND OTHER
HOUSES

FIG. 2.

Llandaff Green. The writer remembers them very well; they were one-story gabled buildings, with stone tiled roofs.

## The Prebendal Houses and Tythe Barns.

Thanks to Mr. Browne Willis, there is little difficulty in locating the Prebendal Houses; but it was only by careful inquiry from some of the older inhabitants, a few years since, that the location of the Tythe Barns could be ascertained with any degree of accuracy.

On the accompanying plan (see Fig. 2), the Prebendal Houses are indicated by letters, and the Tythe Barns by numerals.

### The Prebendal Houses.

A. Site of the Prebendary of Warthacwm, reported by Browne Willis, in 1718, to be in sorry repair.

B. Remains of the Treasurer's House, a gable-end, containing a small Late fourteenth-century window, is still *in situ*.

C. Site of a small College, the remains of which were *in situ* till recently.

When the mill-stream is let out, a portion of a well-masoned spur-base can still be seen, which evidently formed part of this building.

Other Prebendal houses stood close to the Cathedral on the north side, viz.:

D. Site of the Prebendary House of St. Andrew, which stood on the spot where the late Dean Vaughan is buried. Here a culvert was recently found, leading northward, sufficiently large for a man to crawl through.

E. Site of the Prebendary House of St. Crosse, recently called "Cwm," which was demolished within present recollection, and stood where the memorial cross to the late Bishop Ollivant now is.

F. The present Prebendal House, of which Browne Willis speaks "as having been recently rebuilt and

fitted up for the reception of the Chapter, when they came to audit." He also mentions a small library founded here by Bishop Davies.

G. Probable site of the Archdeacon's Castle, referred to by Willis as follows :—

"Towards the north-west of the Church, opposite the Jasper Tower, in a field called Llan-y-wrâch, at about 46 yards distant,

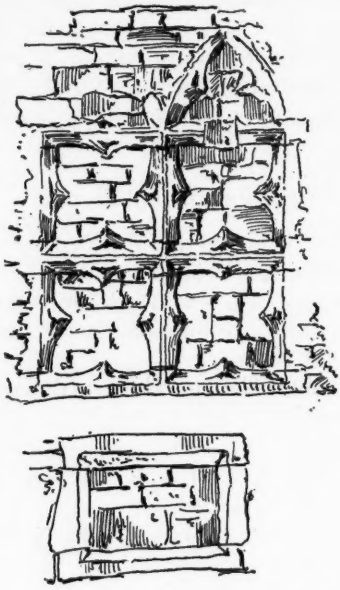


Fig. 3.—Fourteenth-century Windows, built into the north wall of the Black Hall, Llandaff.

there is a ruined piece of a building under the brow of the hill, 48 yards in length and 20 yards broad. It then appears to have been built in the form of a Castle, and is said to have belonged anciently to the Archdeacon of Llandaff. His dwelling was certainly once very magnificent, since (we are told that) the Archdeacon of that Church, in Henry II's time, entertained that Prince at dinner at his own house ; from thence he went to Cardiff, where he supp'd and lay that night, on his return to London from his wars in Ireland."

The Archidiaconal Castle was demolished by Owen Glyndwrdwg at the time when he burnt the Bishop's Castle. The field in which it stood is still called the "Wrack."

Fragments of masonry have quite recently been unearthed on the spot indicated by Browne Willis.

H. Part of a building known as "Black Hall," now converted into a cottage. Built in the north wall are the remains of two fourteenth-century traceried windows, and what was probably an almonry. The name implies that the building once belonged to the Black Friars. These remains until recently were hidden from view by a shed built against the wall (see Fig. 3).

I. Indicates the site of a mediæval building shown on Speed's Map, the foundations of which can still be traced.

## The Tythe Barns.

At the beginning of the nineteenth century, the city contained the remains of no fewer than nine large tythe barns, situate as follows (see Plan, Fig. 2):—

No. 1. The Cwm Barn, on the north side of the Cathedral.

No. 2 was opposite the National Schools. The cottage now occupied by Mrs. Rees forms a part of it.

No. 3 stood on the site of "Butcher's Arms Inn," in High Street.

No. 4 stood to the west of the National Schools; this barn was, until quite recently, used as a cottage, but is now pulled down.

No. 5 was situate on the Cardiff Road, opposite the Registry; part of the old walls are still standing.

No. 6 was on the Ely Road, on the site of the last house in Cambria Terrace.

No. 7 was opposite the "Maltster's Arms," and now forms two cottages.

No. 8 was in Pavement Street; some fragments of walling still remain.

No. 9, known as the College Barn, was at Llandaff Yard, near the College Iron Works.

## Llandaff Parish.

Two centuries ago, the parish of Llandaff contained in all about two hundred and thirty-five houses. In the city there were one hundred and one, at Fairwater twenty-three, Ely twenty-four; and in thickly-populated Canton of to-day there were but fourteen houses. Gabalva was even larger, for it contained sixteen.

Of Whitchurch village, which formerly belonged to Llandaff, Browne Willis writes:—

> "Having in it twenty-five cottages lying at a great distance from the Church, procured in Bishop Fields time (1619 to 1627) about the begining of Charles I reign, a separate Chapel to be erected therein for the use of the inhabitants and is now considered distinct from Llandaff. The Cure of Llandaff and Whitchurch was served by two Curates officiating at the Cathedral as Vicars Choral. These two, with four singing men or lay vicars and four singing boys, constituted the Choir."

A new church has now been built. The old chapel certainly makes a pretence of standing, but there is hardly a pane of glass unbroken in either nave or chancel windows; the slates are falling from the roof, while the roof-timbers are still trying their best to hold together.

In conclusion, it may be of interest to record the following recent finds:—

Fragments of Roman pottery were found when the new Palace Road was formed a few years ago; at the same time and near the same spot a navvy unearthed some silver spoons, which his mate described as having "little idols" on the top: evidently Apostle spoons. The finder absconded with his treasure, and has not since been heard of.

THE OLD TOLL-HOUSE, LLANDAFF.

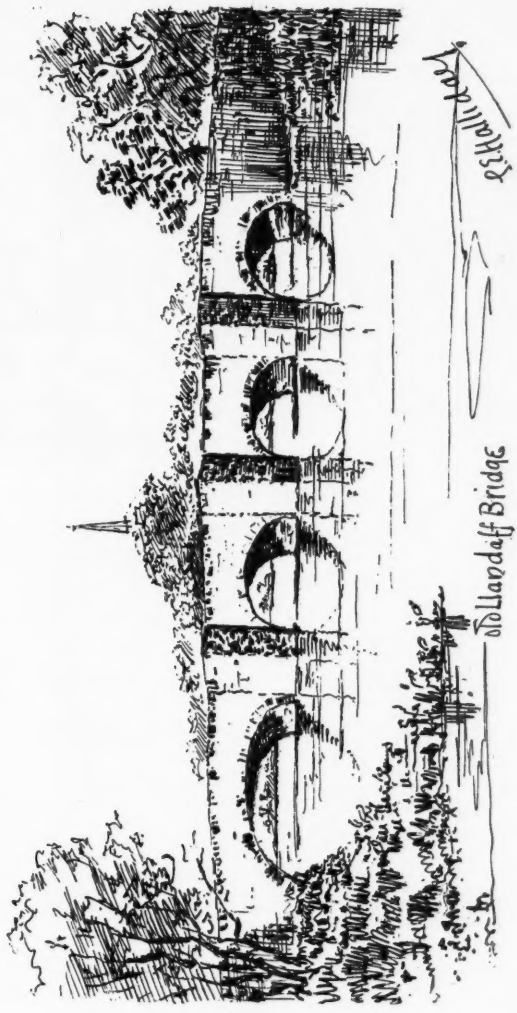



Fig. 4.

A bronze coin of more than usual interest, now in the writer's possession, was found near the Cathedral a short time ago. The piece is Byzantine, Romanus II, A.D.

959 to 963. The inscription, partly in Greek and partly in Latin, reads as follows. On the face :—

"Romanus King of the Romans," and on the reverse, "Romanus in God King of the Romans."


Fig. 5.

Fig. 4 is taken from a sketch made by the writer of "Old Llandaff Bridge," prior to its complete alteration a few years since.

Fig. 5 is a sketch of the quaint old cottages which, until quite recently, stood on Llandaff Green.

Fig. 6 is taken from a photograph of Llandaff Toll-gate, now demolished.

Cross-slab of Haerdur at Llanveynoe, Herefordshire.

# Archaeological Notes and Queries.

EARLY INSCRIBED CROSS-SLAB AT LLANVEYNOE, HEREFORDSHIRE.—Llanveynoe Church is situated close to the borders of Wales, on the east side of the Black Mountains, about 15 miles south-west of Hereford. I am indebted to Mr. C. H. Read, F.S.A., of the British Museum, for having first called my attention to the existence of the early inscribed slab here illustrated, and to Mr. G. R. Trafford, of New Forest, Hay, for having supplied me with a photograph of the stone and the particulars relating to its discovery. I have also to thank the Rev. G. J. Tuck, Vicar of Newton, Vrwchurch, for sending me the dimensions of the slab. It was dug up by some quarrymen about three years ago, just outside the churchyard at Llanveynoe, and was photographed by Mr. Trafford very soon after it was found. Mr. Tuck informs me that it is now carefully preserved within the church.

The slab is 2 ft. 3 ins. long, by 1 ft. 3 ins. wide at the top, and 1 ft. wide at the bottom, by $1\frac{1}{2}$ ins. thick. The top arm of the cross which has been broken off, no doubt had the letter Alpha upon it. On the right arm is the letter Omega, on the left the $\overline{\chi\rho c}$ contraction for Christos, and at the top of the shaft the $\overline{\text{Ihr}}$ contraction for Iesos. On the right side of the slab is the following inscription, in three vertical lines of mixed minuscules and capitals,

h<erdur fecit
crucem
ist<m

"Haerdur made this cross." The most remarkable feature in the lettering of the inscription is the capital A placed sideways thus: <.

The slab is of pre-Norman type, and possibly as early as the tenth century. The Alpha and Omega occur alone on two cross-slabs at Hartlepool, and on a cross-slab at Billingham, both in the county of Durham. The $\overline{\chi\rho s}$ abbreviation occurs alone on cross-slabs at Tullylease, Co. Cork, and Llanwnnws, Cardiganshire. The Alpha Omega in combination with the $\overline{\chi\rho c}$ or $\overline{\chi\rho s}$ and IHC or IHS abbreviations occur on cross-slabs at Pen-Arthur, St. Davids, and St. Edrens, all three in Pembrokeshire, and on the cross-slab of Bresal, at Reefert, Co. Wicklow. The Llanveynoe slab, therefore, belongs to the same archæological group. For further information on the subject, the reader may consult J. R. Allen's *Christian Symbolism*, p. 113, and the *Archæologia Cambrensis*, 4th Ser., vol. xiv, p. 262; 5th Ser., vol. iii, p. 43; and 5th Ser., vol. ix, p. 78.

J. ROMILLY ALLEN.

FIND OF BRONZE IMPLEMENTS IN WALES.—The Rev. George Eyre Evans, the author of the excellent work *Aberystwyth: Its Court Leet*, A.D. 1690-1900, gives the following account in *The Welsh Gazette*, July 17th, 1902:—

"*Discovery of Bronze Axe-heads.*—Early last month, June, 1902, as Mr. John Brown, of Caergog, parish of Cemmes, was cutting peat on Tanglanau Mountain, Cwmdugold, hard by Llidiart-y-Baron, some 12 miles from Machynlleth, he was so fortunate as to unearth eighteen bronze axe-heads, of three different sizes, and all in excellent preservation. Two of them which I have carefully handled and examined, are now on view in the window of the drapery establishment of Mr. W. M. Jones, draper, at Machynlleth. The larger of the two is 7½ ins. in length, with an edge of 2½ ins.; the shorter one is 6 ins. long. Both have the loop, intact, where the blade springs from the part which entered the wooden handle. The cutting edges have been brought to the highest point of tenacity by hammering. The peculiar greenish colour was imparted by oxidization. At present I express no opinion as to the age of these axe-heads. Photographs of the two have been taken by Mr. John Jones, Dovey Studio. Is it too much to hope that Mr. Brown will see his way to deposit some of these historically interesting bronzes in the museum of U.C.W. at Aberystwyth, and Bangor, as well as placing one in the custody of the Governors of Machynlleth County School, for its collection of local finds?

"GEO. EYRE EVANS."

It is to be feared that most of the axe-heads have been distributed among private individuals, who probably have little appreciation of their historic value.

HAROLD HUGHES.